

SCIENCE AND INDUSTRY

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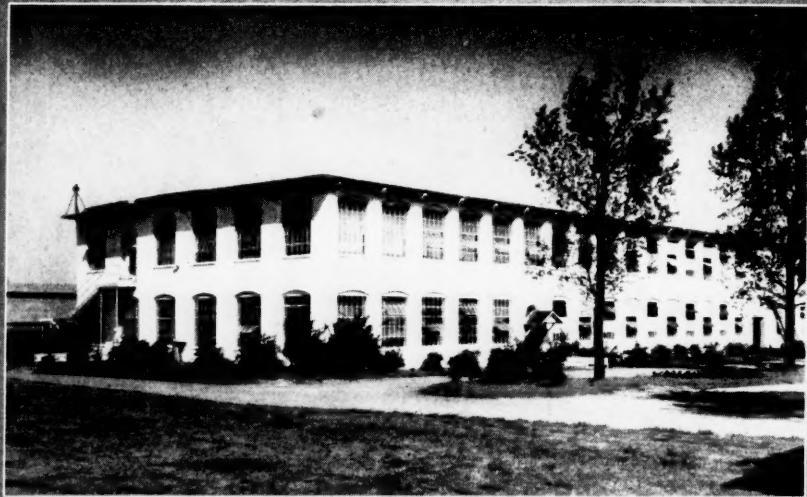
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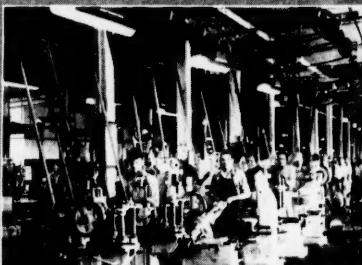
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MANUFACTURERS RECORD

ESTABLISHED 1882

Devoted to the Industrial Development of the South and Southwest



Volume 117

May, 1948

Number 5

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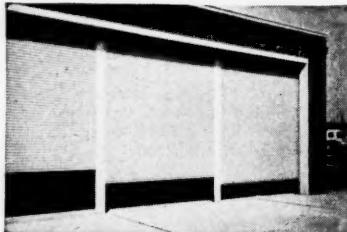
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COVER ILLUSTRATION — The handsome young lady on the Record's cover is Miss Betty Sullivan, 1948 Peanut Queen from Macon, Ga. Through her fingers fall a small portion of Georgia's peanut crop which, during the short span of her 17 years, has grown in annual value from \$7,000,000 to \$70,000,000. For the state, the cash value of its peanut crop is second only to cotton. Equally important, intensive research through the years has resulted in an almost endless variety of uses for the peanut and its by-products, giving rise to many new industries in the state and the South.

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Southern Business Outlook

No change of significant nature is to be noted in Southern business activity during the latest month represented in Southern Business Outlook. Fluctuations are to be seen in practically all departments, but these are either so slight as to carry little forecasting weight, or are easily explained by reason of unusual occurrences. Declines in coal and meat production are the result of work stoppages, and cannot be construed as weakness of markets.

While coal output was in a temporary slump, crude oil production increased. Generally speaking, industrial production continues at a level rate, along a high plane. The only present indication of future weakness lies in slight but steady gains in inventories. These gains have been in progress for a number of months, but only a few lines have showed any weakening in prices. Reduction in shoe prices are reported by some manufacturers, and recent declines in basic farm commodities have found their counterpart in food reductions at retail. In the latter, however, current trend is toward renewed strength, rather than further decline.

Southern bank deposits are off slightly for the month, reflecting mainly income tax payments. Generally, liquid funds are reported in good supply. Business transactions, as represented by banking reports, indicate increased, rather than lower, activity. As an indicator of such activity, bank debits are being substituted this month in place of bank clearings heretofore carried. Bank debits, representing intra- as well as inter-bank check transactions, are more comprehensive than clearings, and have the added advantage of eliminating inter-banking transactions that have little bearing on the business situation.

MONTHLY INDUSTRIAL ACTIVITY

(16 Southern States)

	Latest Month	Preceding Month	Year Ago
All Manufacturing	\$ 3,081,000,000	\$ 3,108,000,000	\$ 2,675,000,000
Durables	\$ 1,104,000,000	\$ 1,076,000,000	\$ 964,000,000
Nondurables	\$ 1,977,000,000	\$ 2,032,000,000	\$ 1,711,000,000
Steel Output (tons)	1,140,000	1,222,000	1,128,000
Pig Iron Output (tons)	327,000	374,000	318,000
Cotton Consumed (bales)	694,000	763,000	735,000
Spinning Activity (000 spindle-hrs.)	8,692,000	9,084,000	7,760,000
Pine Lumber Cut (board feet)	72,462,000	56,749,000	75,331,000
Electric Output (000 kw.-hrs.)	7,365,000	7,959,000	6,639,000
Construction Awards	\$ 213,213,000	\$ 256,999,000	\$ 147,480,000

F FARMS AND MINERALS

Farm Marketings	\$ 537,333,000	\$ 697,203,000*	\$ 515,967,000
Meat Slaughter (head)	818,000	992,000	947,000
Coal Output (tons)	17,658,000	25,529,000	26,497,000
Petroleum Output (barrels)	108,495,000	102,108,000	96,132,000

FINANCE AND DISTRIBUTION

New Corporations (number)	1,824	2,551	2,086
Business Failures (number)	72	51	34
Bank Deposits (Reporting Banks)	\$ 9,747,000,000	\$ 10,140,000,000	\$ 7,704,000,000
Bank Debits (All Banks)	\$ 17,216,000,000	\$ 14,608,000,000	\$ 14,978,000,000
Retail Sales	\$ 2,278,000,000	\$ 1,988,000,000	\$ 802,091,000,000
Carloadings	1,135,000	1,129,000	1,297,000

MANUFACTURING EMPLOYMENT

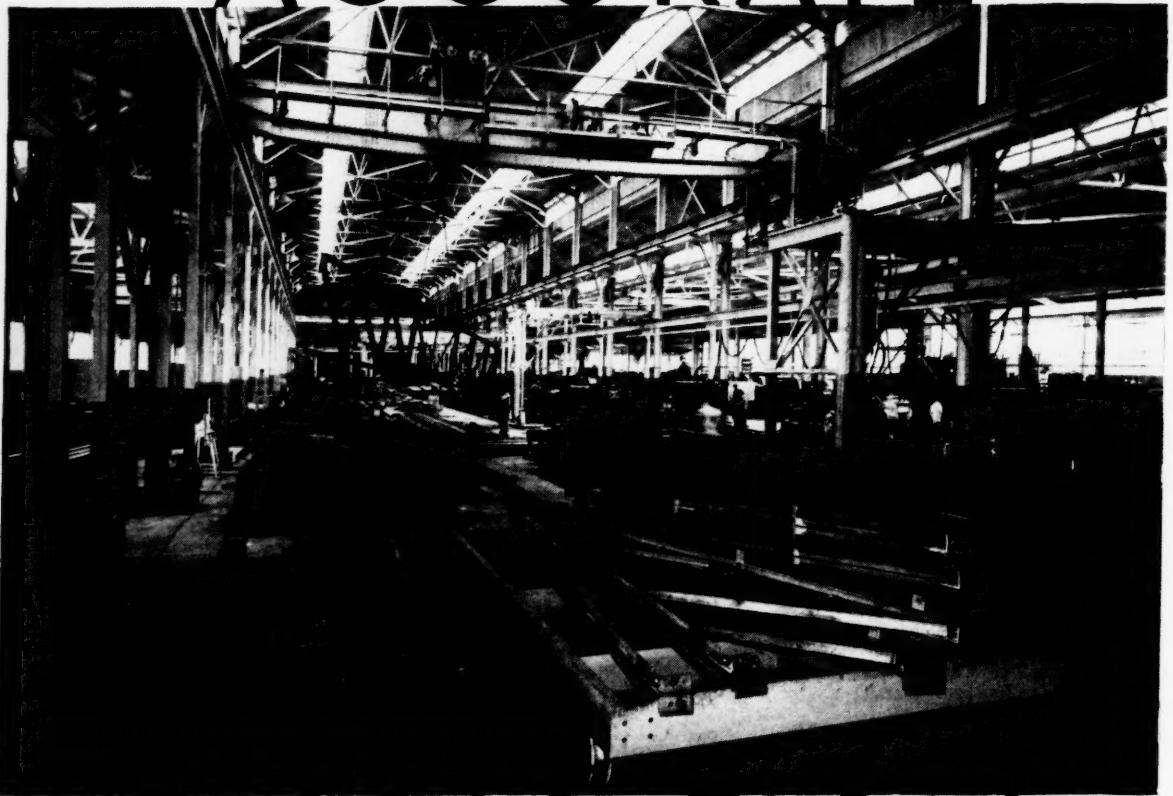
(Persons Employed—thousands)

	Durables		Nondurables		All Manufacturing				
	Latest Month	Preceding Month	Year Ago	Latest Month	Preceding Month	Year Ago	Latest Month	Preceding Month	Year Ago
Alabama	136.7	137.8	135.7	94.3	94.2	88.8	231.0	232.0	224.5
Arkansas	49.9	50.1	47.4	24.9	24.8	23.8	74.8	74.9	71.2
Florida	31.7	33.3	34.0	54.5	53.9	54.1	86.2	87.2	88.1
Georgia	70.1	70.3	69.2	188.4	189.1	186.7	258.5	259.4	255.9
Kentucky	61.2	61.9	62.8	69.1	69.2	69.3	130.3	131.1	132.1
Louisiana	54.1	55.9	54.0	83.1	84.4	78.6	137.2	140.3	132.6
Maryland	116.0	114.0	124.0	113.0	112.0	113.0	229.0	226.0	237.0
Mississippi	58.7	58.8	53.5	36.3	36.0	35.2	95.0	94.8	88.7
Missouri	152.9	153.7	142.6	212.1	212.4	196.7	365.0	366.1	339.3
North Carolina	91.9	92.1	85.5	290.2	290.1	288.4	328.1	382.2	373.9
Oklahoma	20.9	20.9	21.4	34.1	35.5	33.2	55.0	56.4	54.6
South Carolina	37.4	37.6	36.3	159.3	159.8	159.4	196.7	197.4	195.7
Tennessee	93.3	93.9	91.5	158.9	159.8	154.2	252.2	253.7	245.7
Texas	141.0	141.4	135.6	199.2	201.5	190.4	340.2	342.9	326.0
Virginia	67.3	68.1	66.6	146.3	145.5	143.5	213.6	213.6	210.1
West Virginia	85.6	86.2	86.0	48.1	48.7	47.8	133.7	134.9	133.3
South	1268.7	1276.0	1246.1	1911.8	1916.9	1863.1	3180.5	3192.9	3109.2

*Revised.

Of the above tabulation, data for Florida are figures rounded to nearest thousand from the monthly statistical report of Florida Industrial Commission; Georgia, Department of Labor; Maryland, State Department of Labor and Industry; Louisiana, Louisiana State University, College of Commerce; North Carolina, State Department of Labor; Oklahoma, State Employment Security Commission; Tennessee, State Department of Employment Security; Texas, the University of Texas, Bureau of Business Research; Virginia, Department of Labor and Industry. In the absence of cooperative aid from other states, the remaining figures are result of monthly surveys by MANUFACTURERS' RECORD.

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The Southern Spotlight

The Piedmont Area

BY J. A. DALY

Charlotte—Piedmont area manufacturers' visibility was restricted by international political clouds as April ended. General business was at a high level. With the advent of national rearming, however, possibilities of revived government controls worried the textile industry.

RETAIL TRADE

• **Sales.** Favorable weather continuing since Easter expanded retail demand throughout April. Retail dollar volume held slightly higher than a year ago. Foodstuffs sales continued normal. Buying was conservative. Some wholesalers reported spotty business late in April. Demand strong for major appliances with liberal use of consumer credit.

PRODUCTION

• **Power.** High manufacturing rates reflected in the 10 to 13 per cent increase in power production in weekly reports over the 1947 weeks. Carolina Power & Light Co. sought authority to construct dam on Lumber River. Duke Power Co. plans call for two large South Carolina projects. To generate 130,000 kilowatts.

• **Furniture.** Cancellations in some volume and substitutions of orders in substantial volume were received during recent weeks by Carolina furniture manufacturers. Production, curtailed moderately, held at relatively high rates and backlogs were reported by representative plants as equal to three to ten weeks' output. Consumer resistance to prices noted.

• **Textiles.** Downward price trend halted. New demand gave prices new strength persisting as April ended. Demand for women's and men's hosiery continued brisk. Output of spring and summer wear sold ahead and buying in fall lines was steady. Manufacturers studied prospects of heavy military buying.

AGRICULTURE

• **Exports.** Late frost resulted in losses totaling several thousand carloads of peaches scheduled for export. South Carolina damage was 50 per cent of crop. ERP program will permit exports of 500,000,000 pounds of American leaf tobacco annually, including 400,000,000 pounds of flue cured.

TRANSPORTATION

• **Rate Increase.** Railroads were granted an interim 10 per cent North Carolina interstate freight rate increase, except on pulp wood and road building aggregates. Motor truckers sought substantial, varying increases on northbound textile shipments. ICC deferred hearings.

CONSTRUCTION

• **Volume.** Charlotte building permits totaled \$1,694,441 for March and held this rate in April. The March total, highest for any month in many years, compared with \$1,110,000 for February. Charlotte permits for the first quarter were \$3,321,624, compared with \$2,236,618 for the 1947 quarter.

EMPLOYMENT

• **Labor.** Skilled labor unemployment fell to a new post-war low in practically all Piedmont industrial centers. Placement

of unskilled white workers continued steady. Early indications of farm labor shortages were reported. Latest official data showed North Carolina manufacturing employment at 382,000 compared with 373,000 in the 1947 period. The average weekly wage was \$40.86; hourly average, \$1.029.

The Southeast

BY JOHN MEBANE

Atlanta—The Southeast's economy was struck a sharp blow last month when flash floods and torrential rains caused a havoc in agriculture in many sectors. Damage will run into millions. Retailers are expected to feel the effects of the decline in farm income.

RETAIL TRADE

• **Sales.** Generally, dollar volume is holding well, but rainy season cut into unit purchases. In main, department store basements showing gains in excess of rest of store. Soft goods, aided by Easter, sold well.

PRODUCTION

• **Textiles.** Textile industry in Georgia has launched a farflung program of modernization, training and research, involving expenditure of millions of dollars. Installation of new machines and rehabilitation of plants well underway. Object of textile leaders is to end, if possible, recurring periods of distress characteristic of industry in past. T. M. Forbes, executive vice president of Cotton Manufacturers Association of Georgia, says industry is prosperous for first time in years but warns that present earnings must be regarded as temporary. When Georgia School of Technology completes new textile building, this school will be among outstanding in the nation.

AGRICULTURE

• **Estimate.** Surveys showed the region's multi-million dollar plant industry suffered greatest setback in history. Seventy per cent of cabbage crop and 50 per cent of watermelon crop lost in one of Georgia's largest truck growing counties. Citrus fruit heavily hit in number of areas as were peaches. Grain crops generally in good condition but less acreage than last year.

• **Labor.** Most farmers finding labor critically short resulting in late plantings. Urgently-needed farm machinery also in short supply. In some sections farmers were working well into the night, using tractors equipped with lights.

EMPLOYMENT

• **Textiles.** Georgia textile industry now employs about 38 per cent of all manufacturing workers in the state and is Georgia's largest employer of manufacturing labor. Agricultural and Industrial Development Board figures show 107,500 workers in state's 175 textile mills. Fifty-two new textile plants established last year. As of the first of this year there were 3,202,000 spindles in place—a gain of 102,000 over 1944-46 period.

• **Unions.** All-out battle between AFL and CIO to organize textile workers in Southeast appears in making. CIO has been most active in past, but AFL has announced splitting up of its Southern territory in manner to call for increased

(Continued on page 16)

The Southern Spotlight

(Continued from page 15)

organizational effort. Textile leaders say unions have, generally, met with small success in their drives.

FINANCE

• **Dividends.** During the month Atlanta companies and firms with large local interests distributed dividend payments totaling \$11,727,241. Coca-Cola Company topped list in total payments with \$4,108,865, according to tabulation compiled by Courts & Company, investment securities dealers.

UTILITIES

• **Franchise.** In negotiating a new franchise with city of Decatur, Ga., Georgia Power Co. disclosed it is encouraging "partnership" with many municipalities in the state. Revealed were details of a program which would provide that 3 per cent of gross receipts from electric energy in a community be paid to the city's government.

Birmingham District

BY R. W. KINCEY

Birmingham—With coal mining once again at virtual capacity, the Birmingham industrial district has set about the rather strenuous and doubtful job of overcoming the costly slack and restoring a normal flow of raw materials to iron and steel dependent plants.

The work stoppage in coal will be a staggering loss to industry, not only in the immediate district, but throughout many sections of the Southeast. Figures are not immediately available on tonnage loss, but the prolonged period of idleness has served to greatly intensify the shortage in many basic materials and to further slow production in pipe plants, foundries, fabricating shops and allied industries.

PRODUCTION

• **Steel.** Steelmaking will return by the end of the month or before to 100 per cent and as much material as possible will go to plants for processing as the slack is taken up.

• **Orders.** Orders continue to come to the district's plants in greater volume, in many instances, than the flow of raw materials will take care of, especially in iron and steel. Indicative of the continuing high level of business is an order from the Louisville & Nashville Railroad for 2,000 hopper cars at a cost in excess of \$7,000,000. The Ensley rail mill is booked into the indefinite future as are the pipe plants and many of the miscellaneous industries of the district.

EMPLOYMENT

• **Increase.** Employment activity as indicated by the Birmingham, Ensley and Bessemer offices of the Alabama State Employment Service showed job placements were up 3.9 per cent over the previous month but down 16.9 per cent from a year ago. Applications for work showed some increase over a year ago, but were less than for February.

FINANCE

• **Earnings.** Net profits for the first quarter of 1948 of \$529,819, equal to \$1.06 a common share, compared with \$439,100, or 80 cents a share, was reported by Sloss-Sheffield Steel & Iron Co. The company also announced election at a meeting in Jersey City of Hugh Morrow as chairman of the board. He is succeeded as president by Claude S. Lawson.

promoted from vice president. A dividend of 40 cents a share on common stock was declared.

• **Bank Savings.** An outstanding feature is the fact that balance in bank savings at the end of March totaled \$64,633,650, a slight gain over the preceding month, but 4.3 per cent above the balance of a year ago.

The Southwest

BY DAN SUMMERS

Dallas—The Southwest got down to comparing notes in April and discovered that the big percentage increases over the previous year weren't going to be so popular this year. At least, that was the showing for the first quarter of 1948.

RETAIL TRADE

• **Sales.** Adverse weather was blamed for the slump in department store sales early in the year's first quarter. A nervous stock market made a poorer showing in February sales and March only staged the fifth consecutive month of increased inventories.

AGRICULTURE

• **Production.** Grain producers were as cautious if not more so than the consumer. The principal grain markets reported only fair receipts of corn, wheat and oats. While this situation was particularly true the first three months of the year, a major relief was seen in the aid-to-Europe program. Too, the poor market showings early this year can be attributed not only to the unsettled prices of February but to a "well fixed" financial condition among a greater number of producers.

• **Wheat.** Although wheat producers have been hesitant about predicting the outcome of the winter wheat, there is reason to believe that the favorable unofficial crop reports may still be right. Late snows helped considerably. Some observers yet contend that the crops of wheat delayed in development by the unfavorable weather will actually prevent a normal season.

PRODUCTION

• **Survey.** Businessmen and industrial managers of Oklahoma are expecting publication soon of the results of their surveys of the industrial potential for their own cities and towns. The project is a result of work by young, spirited Oklahoma Planning and Resources Board. The board first laid plans on how one's town could be sized up industrially. The businessmen then went to work rounding up information on their labor supply, available raw materials, power facilities and available sites for industries. One group of manufacturers and business leaders in the Northwest section of the state visited the Mid-West and East in a campaign directed toward publicizing the advantages of locating industrial plants in their areas. This same group has appointed a committee which already has recommended the employment of an industrial engineer to advise and help in the location of industries in Northwest Oklahoma.

• **Exposition.** Of particular interest to the Oklahoma business leaders as well as other manufacturers over the Southwest will be the first annual Southwestern Industrial Exposition to be held in Fort Worth for seven days beginning May 30. Oklahoma will join with Texas, New Mexico, Arkansas, and Louisiana in showing off its industry and advertising its advantages. The exhibits will emphasize mainly the many products manufactured in each state.



The South

Permanent Rubber Policy. The South's major wartime industry, synthetic rubber, has been made a permanent part of the American economy under legislation requiring maintenance of 665,000 tons of production capacity, regardless of current peacetime needs.

Some of this capacity may be maintained in stand-by condition, but the entire plant must be held as complete production units, ready for instant conversion to capacity yield.

The domestic rubber industry also must guarantee to use at least 250,000 tons a year in peacetime production.

Private industry should operate the synthetic rubber system eventually, but the government-owned plants may be turned over to private bidders only upon specific approval of each contract by House and Senate, through formal legislation. The present act is principally a stop-gap measure, requiring government operation until June 30, 1950, by which time the disposal plan likely will be approved.

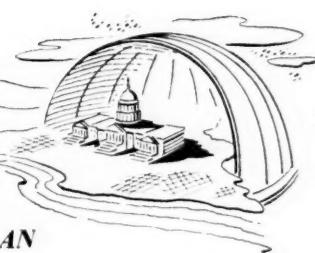
From less than 10,000 tons of synthetic production in 1941, U. S. capacity was expanded to more than 700,000 tons for 1945. Most of the plants were in the industrial South, with the Houston area becoming the center of the new industry.

The new Congressional policy decrees that never again shall the U. S. risk being completely cut off from its rubber supply, as developed immediately following the Japanese conquest of the Dutch East Indies and Malaya in 1941-43.

In that period South America proved an utterly inadequate source of natural rubber, yielding less than 100,000 tons a year under terrific emergency incentives. Some of this substitute natural rubber cost us as much as \$500 a pound. We finally got our synthetic production down to 30 cents a pound. The prewar price of natural was about 22 cents.

Potomac Soundings

by LAWRENCE SULLIVAN



Closed Shop Illegal. North Carolina's legislation forbidding a closed shop has been upheld by the State's Supreme Court as a valid exercise of the police power.

North Carolina's Right to Work Act prohibits making union membership, or non-membership, a condition of employment. The Supreme Court held this legislation does not constitute an abridgement of due process. The prohibition is a defense of public welfare, the court held.

Union security arrangements in labor contracts are inherently subject to abuse, because they create a labor monopoly with the authority of the commonwealth. Most states long since have outlawed all contracts which require a worker to renounce his right to join a union. A logical corollary, the court held, is that no law should compel a man to join against his wishes. The Court expressly noted that its findings was in harmony with the Taft-Hartley Act.

Atlanta Stenographers. A Labor Department survey found women stenographers earning an average of \$39.42 a week in Atlanta, as of December, 1947. The survey covered actual payroll tabulations in 187 establishments.

Women bookkeepers averaged \$44.41, and file clerks, \$30.03 per week.

Average pay for male office workers was \$40 per week, ranging from \$28 for office boys to \$58 for men bookkeepers.

Details of the study may be obtained from the Bureau of Labor Statistics, 114 Marietta Street, Atlanta 3, Ga.

As of February this year there were 16,752,000 women employed in the U. S., or 28 per cent of the total gainfully employed.

Diesel Research. Oklahoma A & M College at Stillwater will become one of the world's foremost research and experimental centers in diesel power, under a project recently launched to transport from Germany the famous Klockner-Humboldt plant, now at Oberursel. The transfer is being made by the Office of

Technical Services, Department of Commerce, with the approval of the U. S. Office of Education.

The Oberursel laboratory, regarded as perhaps the best equipped in the world, is being shipped complete in 70 crates weighing 5 to 10 tons each. Oklahoma A & M's present engineering department will be expanded to become the Oklahoma Institute of Technology.

The laboratory was discovered in Germany by a scientific investigating mission headed by Orlis D. Treiber, a consulting engineer with the Hercules Motor Co., Canton, Ohio. The assignment of the plant to Oklahoma was recommended unanimously by the Automotive Industry Advisory Committee.

The committee pointed out that because of the war aftermath in Germany, that nation could be expected no longer to lead in the field of diesel research. The original plant was valued at approximately \$2,000,000. No less than 114 colleges and technical schools were surveyed before the Oklahoma site was agreed upon. President Henry G. Bennett announces that A & M will provide a new \$500,000 building for the diesel plant, as part of the university's \$15,000,000 building program.

"It will establish a large diesel research laboratory in a new area. Another consideration which prompted the Government to follow the recommendation of the advisory committee was the assurance received that financial assistance will be forthcoming from the oil industry in the Southwest."

South Carolina Idea. The first nationwide seminar in public purchasing was sponsored in Washington last month by the recently established Bureau of Federal Supply. The seminar was the suggestion of W. Z. Betts, Director of Purchases for the State of North Carolina. Secretary of the Treasury Snyder opened the week-long seminar, which explored all the known methods and techniques of public purchase, auditing, testing, accounting, and standards compliance.

(Continued on page 26)

Potomac Soundings — by Lawrence Sullivan

(Continued from page 25)

Some fifty nationally recognized specialists in public purchasing participated. Clifton E. Mack, Director of the Bureau of Federal Supply, acted as chairman and moderator of the seminar sessions, which resulted in the establishment of the new National Academy for Public Purchasing. Mr. Betts, a member of the program committee, was elected an officer of the National Academy.

Alabama Bauxite. A new exploratory report from the Bureau of Mines discloses about 187,000 tons of lower-grade bauxite in Colbert County, Alabama—a principal source of supply for the Lister Hill plant of Reynolds Metals. The deposits are scattered throughout twelve newly marked areas.

"No Bayer-grade or commercial quality bauxite was found."

Ask for Investigations Report 4207. A similar exploratory report on fluorspar deposits in Crittenden County, Kentucky, is catalogued as No. 4205.

Atomic Bomb Workers. The U. S. District Court for the Eastern District of Tennessee has held that workers engaged in any process of atomic bomb construction are not employed in interstate commerce, within the meaning of the Federal statutes.

The decision has important bearing upon the status of labor unions in the Oakridge plant, where several strike threats have developed during the last two years. Oakridge operations are burdened with both AFL and CIO unionists.

Under the ruling of the District Court at Knoxville, these Oakridge labor unions do not come within the jurisdiction of the federal labor laws, although there are no special statutes governing Oakridge labor relations.

The Knoxville ruling turned on a case arising under the Fair Labor Standards Act. The court held that workers engaged in atom bomb production were not employed in manufacture of goods for commerce. The atom bomb, unique in character, as the court noted, is not an article of commerce. Hence, such workers were not entitled to recover overtime damages, penalties, and attorneys' fees under the wage-hour law.

Personally, we had never suspected that the atom bomb plants were working overtime these days. Nevertheless, the court distinguished the atom bomb from all other weapons of war, which are bought and sold at price. Under the Atomic Energy Act of 1946, the atom bomb never can enter the channels of commerce. It is manufactured without any motive of profit, and never may be lawfully for sale.

If our thousands of atom workers are not subject to federal labor laws, are their

unions free agents? May they strike for any cause which might occur—or wholly without cause? If a strike should develop, and the Labor Board find itself without jurisdiction under the injunctive provisions of the Taft-Hartley Act, what then of national security?

The Knoxville decision was in the case of *Young vs. Kellett*. No appeal was noted.

The Nation

Steel Schedules Cut. The coal strike cost the U. S. close to a million tons of steel production, and third-quarter shipping allocations are being trimmed accordingly. John L. Lewis threw his annual monkey-wrench into the industrial machinery this year just as the steel industry was coming up over the hump of pent-up wartime demand. As a result, a generally tight steel picture is anticipated for another full year.

Since the end of the Pacific war in September, 1945, steel has struggled valiantly to come abreast of its order books. But in that period it has faced five coal strikes, and one general steel strike. The combined tonnage lost in all these strikes is estimated by the industry at more than 50 million tons, or about 70 per cent of a normal year's production. Were that tonnage available today, there would be no steel shortage. Who is sabotaging the American economy—labor or capital?

When steel furnaces are banked for lack of coal, some can't get into production again in less than three weeks. All this spells trouble in steel output and shipments through the remainder of 1948.

Power Expansion. Our U. S. electric power plant has expanded from 28-million kw peak load capacity in December 1940, to 47.5-million kw in December 1947. Planned expansion projects for the years 1948-51 contemplate development of an additional 14.4-million kw capacity during these four years, according to nation-wide reports to the Federal Power Commission.

Total new plant installed during 1947 was 2,654,077 kw, normal rated capacity, the greatest since 1941.

The plotted rate of development over the next four years would provide ample plant capacity for all needs, including wartime industrial mobilization.

Steel Exports. Because of delay in organizing the Marshall Plan's administrative machinery, final export quotas for the second quarter were not published until mid-April.

The overseas steel-mill allocations aggregate approximately 850,000 tons for April, May and June. Specific items on this list include 100,000 tons of rolled

bars; 107,000 tons of rolled plates, 78,500 tons of black steel sheets, 113,000 tons of structural shapes, 60,000 tons of galvanized and barbed wire, 44,000 tons of concrete reinforcing bars, 22,000 tons of rail joints and tie plates, 6,000 tons of nails and 6,000 tons of car wheels and axles.

Cursory examination of the export allocations offer a hint concerning domestic iron and steel deliveries to be anticipated, particularly in view of the expanding defense program at home.

Business Boom. After allowing for the tax reduction bill, increased defense expenditures, and the enlarged European assistance program, the Treasury recalculates its fiscal program for the fiscal 1949, to come up with no new demands on the open money market, but with a deficit of about \$1-billion—to be absorbed entirely by government trust funds.

The Treasury calculations are based on an assumed personal income of \$200-billion for the year, down \$11-billion from the 1948 income rate to date, but \$3-billion more than the 1947 total. In short, 1949 is expected to be at a general level somewhat higher than 1947, but about 5 per cent below the first half of 1948.

The Treasury program contemplates stabilized money rates at about 2½ per cent for long term bonds.

Says Under Secretary A. L. Wiggin:

"It should be well recognized that there is no question of the financial adequacy of the Federal Reserve System and the Treasury to maintain both the market and the rate and to buy all of the securities that may be required for that purpose."

The Treasury nevertheless recognizes clearly that, "in the long run, there is a real, natural rate of interest, and a departure from this rate will collect its own toll. . . . It is necessary, therefore, that the monetary authorities recognize the long-run economic limitations upon their powers."

New Tax Rates. Payroll deductions under the new tax bill are effective on all wages *paid* after May 1, regardless of the pay period in which earned. Revised deduction tables are in mails to all employers. New firms should apply to their regional Collector of Internal Revenue.

Employers are not authorized to make adjustments between old rates and new on the first four months. Final annual taxes computed at new, lower rates will be reported by the taxpayer, who must recover his overpayment direct from the Treasury, not from the employer.

These refunds on 1948 overpayments will not begin until April 1949.

Investment Market Trends

By Robert S. Byfield
Financial Editor

Oil and copper shares which were mentioned in this column last month have continued to turn in a better than average performance in the speculative markets. It is becoming obvious that our rearmament program, plus the desirability of stockpiling, plus the requirements of the E.R.P. will guarantee tightness of supply in a long list of industrial raw materials for an indefinite period. Included therein are steel, copper, zinc, platinum, lead, aluminum, nitrates, oil and natural gas and for some weeks past securities of companies mining or producing them have reflected the changing aspects of the national economy fully as much as the shares of companies producing aircraft and accessories. While domestic production of aluminum is far below the wartime peak because of the shutdown of certain government plants, the possibilities of restoring adequate supplies of this commodity are limited because of a shortage of electric power. Accordingly we must rely heavily upon imports from Canada where large low cost facilities are readily available.

Foodstuffs More Plentiful

On the other hand, foodstuffs and most agricultural raw materials should become relatively plentiful throughout the balance of the year because of large plantings and favorable weather not only in the United States but in Europe, Australia, Argentina and Burma. Lower prices in the food group may well counterbalance rising quotations for metals and certain chemicals and result in little change in overall commodity price indices.

Declining demand for consumers' goods and services may be cushioned somewhat by improving volume of business in other lines and the overall result will probably be only a moderate decline in the Federal Reserve Board index of production from the 185-190 level at which it has been hovering for some months.

At this writing the Dow-Jones Industrial Stock Average has risen from about 165 in mid-March to 180. Retreat is not expected but an advance above, say 185, would be braked by new demands of corporations for equity capital. Far too much financing has been effected since

V-J Day through the medium of funded debt, bank borrowings and preferred stocks, and many managements are anxious to correct this imbalance as it applies to their own companies.

Corporate Earnings

The subject of corporate financing cannot intelligently be discussed without involving an equally important and now highly controversial subject—corporate earnings. The excellent 1947 results for American industry as disclosed by government statistical sources and individual reports furnished to stockholders have been subjected to wholesale attack and criticism by not only the Left Wing Radicals but many men in public life. A campaign of this character is, of course, hardly a novelty, for the assault on invested capital has been under way for nearly two decades and is world-wide in scope. Nevertheless, the very violence of the anti-corporation offensive, the widespread distortion of facts and the utilization of biased arithmetic merits the concern of investors and in our opinion warrants vigorous rebuttal on the part of capital and management.

Among the contentions of those who for one reason or another take a pot shot at "unconscionable" or "huge" corporate profits is that earnings are large in relation to net worth, or to put it another way, the percentage return is high on each dollar of invested capital. This formula is, of course, self-serving because it insures the creation of a relatively high ratio of profit which is in many cases far more vulnerable to attack than a profit ratio based on sales volume.

Requirements Vary

The amount of net worth and particularly the size of fixed assets required to produce a dollar of sales varies tremendously with the type of operation. Compare the large investment needed in industries such as steel, chemicals and oil refining with those of the service businesses such as advertising, textile converting and engineering and contracting. The absurdity of the net worth yardstick is illustrated by the case of two companies in identical lines of business, en-

joying a like sales volume. One owns its plant and has a large net worth while the second leases its plants and has a much smaller investment. If profits are also identical would not our Left Wing jugglers be obliged by their own formula to praise the one for having a social conscience and pillory the other for being a profiteer?

Fallacious Profit Measurement

There is, however, another fallacy involved in the utilization of net worth as a basis for measuring profits. In the case of an overwhelmingly large percentage of corporations fixed assets are on the books at cost and the actual cost of plant, equipment and facilities in use is what was paid for them, not what it costs now or at some future date to replace them. After all, accountants are only financial historians. They must follow the rules of the road and they obviously must be devoid of imagination. Yet in times like these when the price level has doubled in ten years and risen 150 per cent in fifteen, the book cost of the plant and equipment of corporations vastly understates its present value or replacement cost. Just since 1940 the cost of constructing a blast furnace is up 105 per cent and a by-product coke oven 150 per cent while oil refining equipment that cost \$400 per barrel of daily capacity in 1940 costs \$1,000 per barrel to install today. To equate profits expressed in dollars of 1948 purchasing power with a net worth including plant and equipment expressed in 1940 or 1935 dollars is to resort to a species of prestidigitation and double-shuffling calculated to hoodwink the uninformed.

Furthermore a substantial portion of 1947 corporate profits were not really profits at all in the generally accepted sense. Due to the rapidly rising price level we are warned by the Department of Commerce that of the \$28.7 billions of corporate profits for 1947 (before taxes) about \$6 billion reflects "higher unit costs of inventories" and accordingly the figure of \$17 billion of net corporate profits after taxes which has been so often quoted is proportionately an overstatement since inventory profits may well be illusory.

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LITTLE GRAINS OF SAND

*"Little drops of water, little grains of sand,
Make the mighty ocean, and the pleasant land."*

Dictatorship Complex. No more astonishing statement has ever been made by a President than Mr. Truman's recent remark: "Conditions are too grave in the world at this time to put Congress in control of the purse strings of the country." When we consider the fact that Mr. Truman became President, not by election, but because of the death of the duly elected President, this statement is truly amazing. It also throws a bright light on Mr. Truman's moral and intellectual fitness to serve as our Nation's leader.

In the Same Boat. It is a rather dismaying fact that the same man who is quick to challenge the use of dollar statistics in making wage comparisons will all too frequently accept at their face value figures on industrial earnings that are not a whit less fallacious. He may even be found among those who refer indignantly to the "unconscionable" profits of our corporations. It doesn't seem to occur to him that when inflation strikes, it strikes indiscriminately—that it does not distinguish between income in the form of wages, on the one hand, and income in the form of corporate profits, on the other. He knows, perhaps, that a corporation is an individual before the law, but he has probably never thought much about the fact that it has a great deal in common with the individual economically. If he had, he would realize, for example, that the corporation also has a cost of living problem.

Indirect Taxation. It is not generally recognized that all of us indirectly pay the so-called security taxes. This is true because these taxes form an element of cost levied on most manufacturers and distributors and on public service corporations that can be passed on in prices which purchasers of goods and services are compelled to pay. In that way, both those who are covered and those who are not covered contribute to the cost of the social security benefits which only the former group obtain. If partial coverage continues until the general Treasury revenue must be tapped to make up for the insufficiency of the reserves now being accumulated, the system will be even further from "integrity" than it is now.

Splitting the Take. The leaders of labor, who keep demanding more wages on one hand and bigger government spending on the other, might ponder the

figures which show that labor's over-all share in the proceeds of production has increased over the years. In 1929 labor received \$43.7 billion—46.4% of the proceeds of gross business production. In 1947, labor's share grew to \$106.2 billion, or 50.6%. Corporate dividends, meanwhile, declined from 6.1% of the proceeds of gross business production in 1929 to 3.2% in 1947. Here are some other interesting figures: Government's share, the tax take, rose from 8.9% of the proceeds of gross business production in 1929 to 13.9% in 1947. In money, \$20.8 billion more was taken in taxes by government in 1947 than in 1929. The cost of government, like the earnings of labor and the return on investment, must come out of the proceeds of production. If the government take is brought down and held down, more will be left to provide the working man's family with a standard of living perhaps even higher than the BLS figures cover. Perhaps, too, there will be a little more for the investor who provides the tools which enable the working man to achieve high output.

Don't waste time cussing John L. Lewis. Devote it, instead, to constructive work aimed at the abolition of trade union monopolies.

Wishful Thinking. Former Under Secretary of State Sumner Welles in his book *Where Are We Heading*, states what he believes to have been the true Roosevelt policy toward Russia. Roosevelt believed (to quote Mr. Welles) that "The insane delusion that democracy and communism cannot simultaneously exist in the world is rampant. . . . Roosevelt said to me in so many words, 'We won't get any strong international organization unless we can find the way by which the Soviet Union and the United States can work together to build it up as the years go by.' That to him was the key issue. . . . Franklin Roosevelt saw no need to fear Communism if an international organization existed." Again, according to Mr. Welles, Roosevelt "believed American democracy and Soviet communism could never meet." But Roosevelt also believed that our democracy would move 40% toward the Soviet system, and the latter would move 40% toward our system. In other words Roosevelt's policies and the concessions he granted laid the foundations for the present dangerous international situation.

Waste Paper. OPA questionnaires occupying a million cubic feet of files, have been sold for scrap
(Continued on page 34)

POMONA PRODUCTS COMPANY

Growers and Packers

- **Pimientos**
- **Georgia Peaches**
- **Snap Beans**
- **Turnip Greens**
- **Citrus Juices**

**SUNSHINE
Whole Red
PIMENTOS**



**Make meals brighter
and tastier for
only a few cents**

GRIFFIN, GEORGIA
JACKSON, GEORGIA
CLERMONT, FLORIDA

LITTLE GRAINS OF SAND

(Continued from page 33)

paper, a Department of Commerce spokesman told the House Appropriations Committee last month . . . A million cubic feet of paper would make a stack 215 ft. x 215 ft. x 215 ft. and would require 291 freight cars to haul. Just think of the billions of man-hours wasted by intelligent men, most of them during war years when manpower was at a premium, in the preparation of this mountain of "scrap."

Crass Stupidity. Accountant Fred T. Schweitzer, of the West Virginia Public Service Commission recently made an astonishing ruling. He disallowed an item of \$47,000 budgeted by the Chesapeake and Potomac Telephone Co. for advertising for a period of one year. Mr. Schweitzer, according to a United Press dispatch, held that advertising is "unnecessary." Also that because the company is "unable to supply all service demanded of it, advertising is of no value to the public." A more benighted view could scarcely be imagined on the part of any public official. The West Virginia PSC ought to overrule Mr. Schweitzer's ruling. They also ought to insist that he retire from his position.

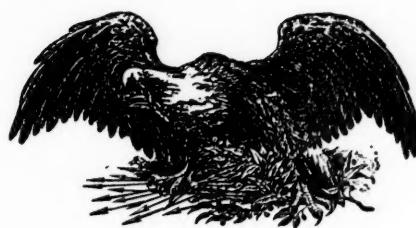
KWs from Coal. The Edison Electric Institute has just announced that the total output of electricity from all generating sources in the country is better than 305,000,000,000 kilowatt hours. This is 8 per cent above the greatest previous year, 1944, and 13 per cent over 1946. Of this tremendous output, the Institute states that approximately 225 billion kilowatt hours were generated in steam plants. In fact, in the past several years, such great progress has been made in improving power generating equipment used in converting coal into energy, that today, the coal burning steam plant is the most economical of the various sources of electric power.

In 1920, it took three pounds of coal to generate one kilowatt hour of electricity. Today, modern power plants can generate the same amount from only eight-tenths of a pound of coal. This is the real reason why under the power companies' five-year expansion program, new electric power facilities will be about 90 per cent steam plants, fueled principally with coal.

More than a Fuel. Most people think of coal only as a source of heat, light and power . . . coal has more by products than a pig. There are now literally tens of thousands of products that come from coal ranging from aspirin to nylons and fertilizer to rubber. One among these many thousand by-products of bituminous coal is ammonium sulphate, the most sought-after form of nitrogen for mixed fertilizer. The Plant Food Council says its production is running far ahead of all expectations, at least 1,500,000 tons more than a year ago.

UnAmerican. In his recent book, *The Tennessee . . . Civil War to TVA*, Conald Davidson, of the faculty of Vanderbilt University gives full credit to the Authority for certain material achievements. Then, in two brilliant paragraphs he touches on the great and

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"What Enriches the South Enriches the Nation"

Capital Erosion

The South, as well as the Nation as a whole, is unquestionably in the midst of a period of steadily increasing demand for new capital—capital to replace and expand the industrial tools which are used to supply the needs of a growing population at ever higher standards of living. This demand is exerting its pressure on business at a time when both costs and prices are much higher than before the war, thus further accentuating the need for venture capital.

This acknowledged need for capital is not being satisfied by the investment of funds in business equities for the very apparent reason that the possible return on investment is not commensurate with the risk involved. This risk is accentuated by the chaotic social, political and economic atmosphere in which the nation finds itself.

The false social philosophy with which our younger manhood has been indoctrinated for fifteen years has encouraged profligate spending both by the individual and by the state, preached dependence of the individual on the state, and sapped the moral fibre of individual initiative and responsibility. Add to this the drying up of sources and it becomes obvious why venture capital no longer ventures.

Capital for risk in business, for investment in the common stocks that own the equity in a business, can and should come from the savings of the well-to-do. Custodians of trust funds such as banks, insurance companies and endowed institutions are morally ob-

ligated to minimize risks and strive for safety in making investments. The role of government as an entrepreneur leads to favoritism, waste, bureaucracy and state socialism, thus working directly at cross purposes with the farsighted investor who is the backbone of our economy.

The confiscatory tax rates on large personal incomes and the excessive rates on those of the frugal middle income group leave little if any surplus for equity investment, and the graduated feature of the tax law destroys any incentive that such investment necessarily involves. The double taxation of dividends is also distinctly harmful in its effect on the situation. Only fools will take risks having no possibility of reward.

The lack of sufficient equity capital is additionally aggravated by punitive graduated estate taxes which further weaken the incentive to risk-taking investment and which depress the market for equity securities by forcing quick liquidation of estates after death and by breaking up large estates into smaller units.

We have seen the sources of business risk capital destroyed in England by confiscatory taxes during the past two generations. We are now witnessing the inevitable result, socialism and deprivation at home and international pauperism abroad.

We are treading the same road just two decades behind England. Please God we turn off to the right in time.

CONSTRUCTION



New Ford Motor plant at St. Louis, Mo., where 3,100 workers will be employed to assemble 450 Lincoln and Mercury cars daily.

Four Month Construction Total of \$864,872,000 Is 77 Per Cent Increase Over 1947 Period

SOUTHERN construction contracts for the first four months of 1948 are valued at \$864,872,000, an increase of seventy-seven per cent when compared with the \$488,542,000 value placed on contracts awarded below the Mason and Dixon line during the first third of last year. The current contract accumulation is the second highest on record, being exceeded only by the \$1,427,710,000 for the first four months of the war year, 1942.

April's southern contract total is placed at \$213,213,000. This represents a gain of forty-four per cent over the \$147,480,000 value registered for construction contracts during the same month of last year in the sixteen southern states. It is, however, a decrease of almost eighteen per cent from the \$256,999,000 of the preceding month. April thus ranks third among the four months. The other totals are: January, \$174,091,000; February, \$220,569,000, and March, \$256,999,000.

The Breakdown

The \$864,872,000 contract total for the elapsed months of this year is composed of \$237,121,000, or twenty-seven per cent for private building; \$262,364,000, or twenty-four per cent for public building; \$171,653,000, or twenty per cent for industrial; \$129,234,000, or fifteen per cent for highways and bridges, and \$124,480,000, or fourteen per cent for heavy engineering work. These are all substantially above the totals for the comparable period of last year.

Residential construction, as it has in the past, makes up most of the private building figure. The \$163,852,000 for southern house and apartment construction is sixty-nine per cent of the private

April Value Totals \$213,213,000

building figure, with the \$35,564,000 for commercial structures and the \$28,976,000 for assembly buildings such as churches and theatres representing fifteen and twelve per cent, respectively, and office structures, \$8,729,000, or about three per cent.

Public building embraces \$111,619,000, or about fifty-five per cent of school work, and \$90,745,000, or forty-five per cent of government building projects, including hospitals. The prospects are that this latter type of project will increase later in the year, as the veterans' hospital program is being accelerated by the Corps of Engineers, which is charged with carrying out the plans, and some progress is being made on the federal aid hospital construction program.

Dams, earthwork and airports have predominated the engineering construction field. The total for such work in the first four months is \$70,017,000, or fifty-six per cent of the \$124,684,000 total for the entire category. Sewer and water work contributed \$36,873,000, or thirty per cent. A rise, or perhaps what could be termed a revival of the rural electrification program, has resulted in contracts totaling \$17,490,000, or fourteen per cent of the figure.

The predominant factor in the private building figure for April was the \$37,220,000 for residential construction, representing sixty per cent of the \$61,949,000. Commercial buildings were valued at

twenty-one per cent of the total, or \$12,955,000; assembly structures at fifteen per cent, or \$9,553,000, and office building at the balance of \$2,221,000.

Industrial construction during April amounted to \$48,900,000, a drop of twenty-six per cent from the figure for the preceding month. Highway contracts, the next highest category, with their total of \$37,294,000, however, were well ahead. The increase was thirty-six per cent over the \$27,336,000 for such work in March. Texas, as usual, headed the list with \$9,337,000 in contracts.

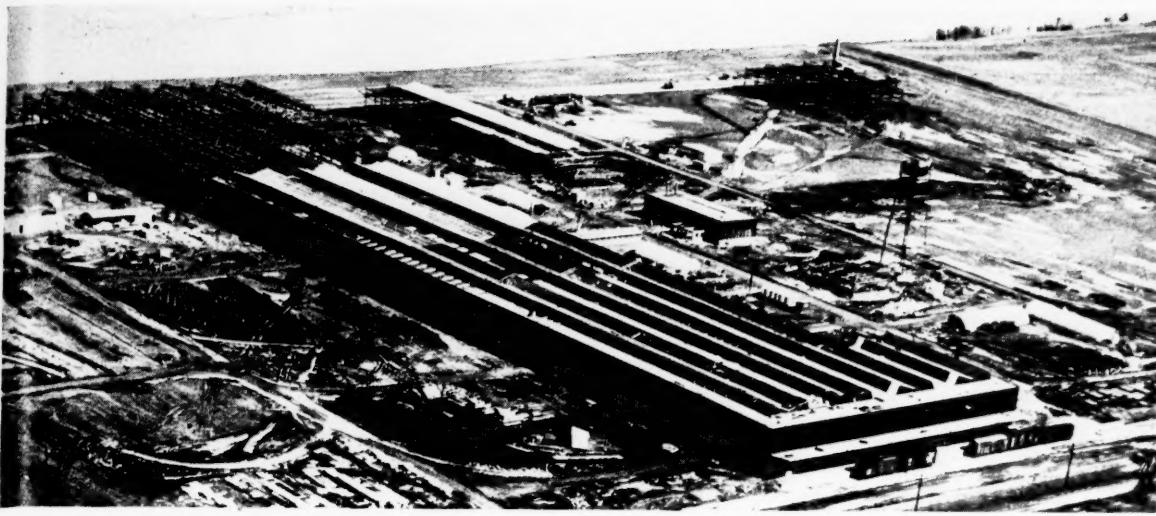
Public Building contributed \$33,763,000 to the April total, or a decrease from the \$44,302,000 for the preceding month. Engineering construction, which was the smallest figure among the five major categories, however, was up. The total for this work was \$31,307,000, as compared with the \$28,553,000 in March.

School Construction

School construction, with a total of \$26,513,000, formed the major part of the public building total. Sewer and water works projects, with their total of \$14,621,000, and dams, earthwork and airports, with a total of \$9,092,000, constituted the preponderance of the engineering construction figure. Government financed electric projects, total \$7,594,000, were slightly up from the March figure.

Southern construction so far this year, as tabulated by the *Construction* magazine, shows a more favorable increase than the twenty per cent rise predicted by Labor Department forecasts. These indicated the expected total of new construction for this year at \$15,200,000,000; that for last year, at \$12,665,000,000. The

CONSTRUCTION



To employ 350 workers, this Decatur, Ala. plant of Calumet & Hecla Consolidated Copper Co. will produce seamless non-ferrous tube.

increase in southern contracts during the first four months, as compared with the same period of last year, is seventy-seven per cent. Prospects for a continuation at a lively rate appear well-founded at the present time.

Competition, however, is becoming keen, a condition that is beginning to thread its way back to the producers, who now in many instances must sell their materials. Steel, of course, is the exception. Already in short supply, steel for construction may be further affected by implementation of the Marshall plan, which will require about 4,000,000 tons, or about five per cent of the output.

Contractors are expanding their activities in search of desirable projects. In some instances, they are bidding on projects several states removed from their usual scene of operations and submitting proposals that are lower than local construction concerns. On other occasions, twice the usual number of bidders appear for relatively insignificant work. This, however, is counterbalanced by a lack of bidders at other lettings.

The Department of Commerce says the generally high production rate of construction materials of 1947 is being carried out this year, with stocks which normally decrease in the first months estimated at higher levels. Gypsum board and lath, cast iron radiation, soil pipe and fittings, nails and hardwood flooring are items which are reported as improving, as are stocks of cement. Ten of the 20 materials covered by the Commerce Department's index recorded declines in output earlier in the year.

"Sufficient, or more than sufficient" production of practically all types of building materials is the view of the Construction Industry Information Committee. Melvin H. Baker, chairman and also head of a large building materials concern, said that "a further improvement in manufacturers' and dealers' inventories is anticipated in 1948 with delays due to unbalanced supplies and retarder shipments

for the most part eliminated."

Extension of the federal aid highway program to provide continuation of work after expiration of the expenditures au-

thorized by the Act of 1944 is expected in Washington. The House of Representatives has approved a bill providing \$500,000,000 for each of the three years.

SOUTH'S CONSTRUCTION BY STATES

	April, 1948 Contracts Awarded	Contracts to be Awarded	Contracts Awarded First Four Months 1948	Contracts Awarded First Four Months 1947
Alabama	\$24,738,000	\$57,042,000	\$78,574,000	\$16,672,000
Arkansas	3,555,000	9,253,000	29,720,000	7,366,000
Dist. of Col.	565,000	31,466,000	12,344,000	12,955,000
Florida	26,163,000	25,146,000	101,610,000	57,715,000
Georgia	12,784,000	23,002,000	39,653,000	68,651,000
Kentucky	1,294,000	26,221,000	15,431,000	5,874,000
Louisiana	17,008,000	22,536,000	80,576,000	26,775,000
Maryland	13,400,000	18,104,000	61,407,000	34,519,000
Mississippi	4,895,000	10,755,000	22,104,000	27,248,000
Missouri	19,176,000	10,935,000	43,266,000	9,738,000
N. Carolina	8,911,000	14,025,000	38,199,000	17,344,000
Oklahoma	7,788,000	107,855,000	27,926,000	8,749,000
S. Carolina	6,183,000	29,811,000	21,032,000	17,747,000
Tennessee	15,086,000	35,977,000	32,727,000	15,150,000
Texas	11,091,000	460,082,000	200,792,000	139,353,000
Virginia	5,218,000	13,905,000	39,608,000	15,844,000
W. Virginia	3,751,000	2,707,000	38,900,000	6,861,000
TOTAL	\$213,213,000	\$869,122,000	\$864,872,000	\$488,532,000

SOUTH'S CONSTRUCTION BY TYPES

	April, 1948 Contracts Awarded	Contracts to be Awarded	Contracts Awarded First Four Months 1948	Contracts Awarded First Four Months 1947
PRIVATE BUILDING				
Assembly (Churches, Theatres, Auditoriums, Fraternal)	\$9,553,000	\$18,762,000	\$28,976,000	\$5,286,000
Commercial (Stores, Restaurants, Filling Stations, Garages)	12,955,000	8,267,000	35,564,000	15,948,000
Residential (Apartments, Hotels, Dwelling)	37,229,000	10,324,000	163,852,000	51,074,000
Office	2,321,000	1,080,000	8,729,000	15,659,000
TOTAL	\$61,949,000	\$38,133,000	\$237,121,000	\$87,967,000
INDUSTRIAL	\$18,900,000	\$566,129,000	\$171,633,000	\$150,782,000
PUBLIC BUILDING				
City, County, State, Federal, Hospitals	\$7,250,000	\$66,894,000	\$90,745,000	\$13,431,000
Schools	26,513,000	57,790,000	111,619,000	39,095,000
TOTAL	\$33,763,000	\$124,684,000	\$202,364,000	\$82,526,000
ENGINEERING				
Dams, Drainage, Earthwork	\$9,092,000	\$12,054,000	\$70,017,000	\$15,382,000
Airports	7,594,000	60,310,000	17,190,000	5,655,000
Federal, County, Municipal	14,621,000	18,355,000	36,973,000	18,623,000
Electric				
Sewers and Waterworks	\$31,307,000	\$90,719,000	\$124,180,000	\$89,680,000
ROADS, STREETS AND BRIDGES	\$37,291,000	\$18,857,000	\$129,154,000	\$97,597,000
TOTAL	\$213,213,000	\$869,122,000	\$864,872,000	\$488,532,000

New Installations Swell Production

While discussions of ERP, possible mobilization of industry, and continued inflationary tendencies held sway in Southern industry last month, the ever-expanding list of new plants and installations grew even larger. In turn, the volume of production continued high.

At the Port of Norfolk, Va., the Norfolk and Western Railway's new \$6,000,000 merchandise freight pier was in full operation, serving coast-wise, inter-coastal, and oversea shipping. With two supporting warehouses, the pier provides 552,000 square feet of floor space, making the installation of the largest and most modern in the world. The pier which can accommodate four large freighters simultaneously, is served by six tracks, two on each apron, and two through the center of the shed. The warehouses have sufficient space to layout the cargoes of four ships and the unusual width (108 feet) aids in the speedy handling of cargo. Adjacent to the pier is a freight yard of 535-car capacity.

Occupying a 100 acre site at Port Neches, Tex., the new \$20,000,000 plant of the Jefferson Chemical Co.

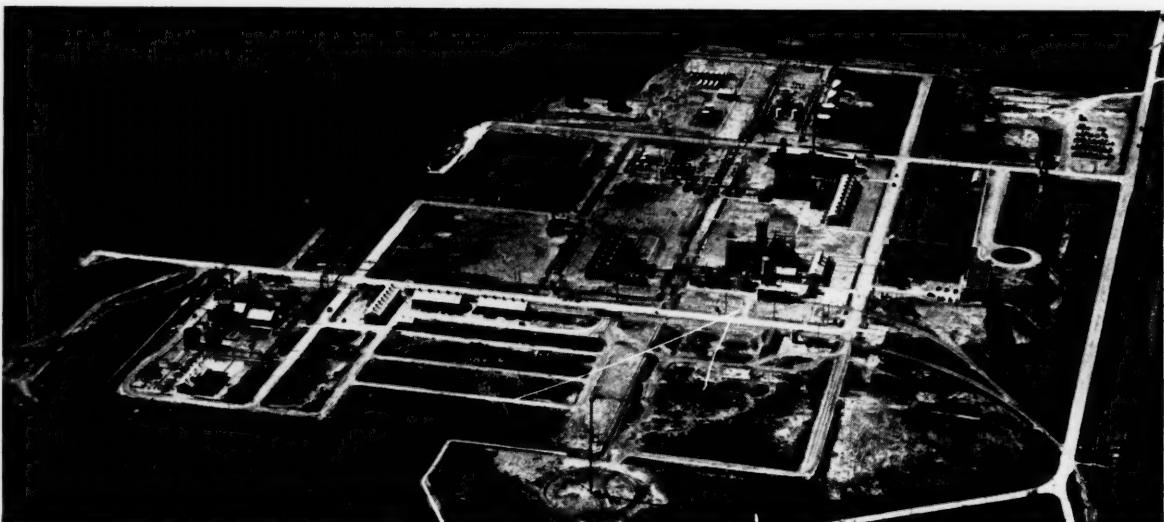


Norfolk & Western Railway's new pier at Port of Norfolk, Va., can simultaneously accommodate four large freighters.

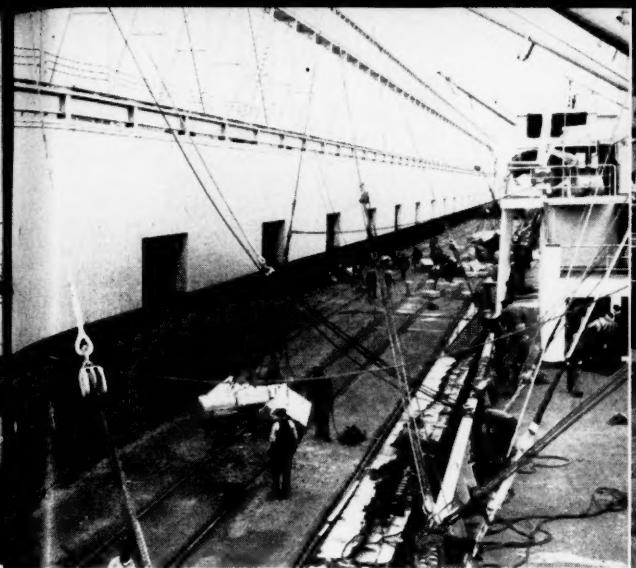
is an important addition to the Gulf Coast chemical industry. The plant's production of ethylene glycol, ethylene oxide, ethylene dichloride, and other products is helping to alleviate a short supply of glycol and oxide.

Also on the Gulf coast, at Baton Rouge, La., a new drumming plant of the Ethyl Corp. recently went into operation. The unit is designed to handle drum shipments of finished "Ethyl" anti-knock compound, supplementing the shipments made from the plant in tank car quantities.

The furniture industry in North Carolina was getting substantial help from production at the Herndon Furniture Industries at Morganton. At that plant, more than 275 persons are engaged in the manufacture of bedroom furniture. The plant itself, designed by architect Henry Irvin Gaines, is 600 feet long and 240 feet deep at the smallest end. Shipping is done directly from the plant's own sidings.



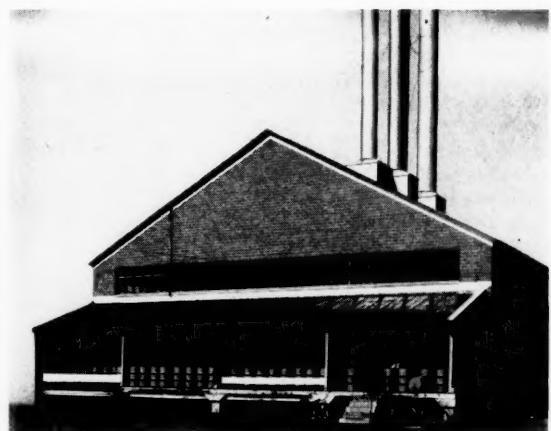
Now in full operation, the Jefferson Chemical Co. plant at Port Neches, Texas, manufacturers of ethylene glycol, oxide and other products. Installation is a sizable addition to a rapidly growing Gulf Coast chemical industry.



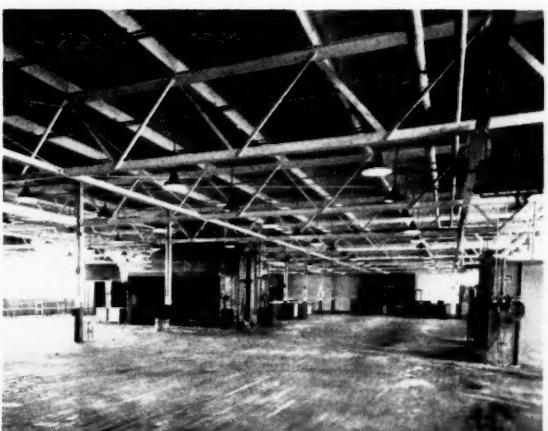
Pier is served by two tracks on each apron. Shed taking cargo, above, also has two tracks running up its center.



Pier and two supporting warehouses provide 552,000 square feet of floor space. Installation cost \$6,000,000.



Ethyl Corp's. new drumming plant at Baton Rouge handles drum as well as tank car shipments of product.



Finishing room of Henredon Furniture Industries, Inc., Morganton, N. C., contains seven water-wash spray booths.



More than 275 persons are employed at the plant of the Henredon company, which produces bedroom furniture. Architect for the 600 foot-long building was Henry Gaines, contractor was Herman-Snipe Co., of Conover, N. C.

Reforestation Aids The Wood Pulp Industry

Early efforts of Seaboard Railroad brought mills to the South. Present program helps insure continued supply of raw materials.

By William J. Krebs

THE states of Virginia, North Carolina, South Carolina, Georgia, Florida and Alabama, with total forest areas of more than 100 million acres, possess the greatest forest potential to be found anywhere in the nation.

In recognizing the potentialities of

tons per day, with more to come.

Earlier, the Union Bag and Paper Corp. located at Savannah, Ga., establishing there the world's greatest integrated mill. Then in 1936 came Camp Manufacturing Co. at Franklin, Va., Container Corporation of America at Fernandina, Fla., West Virginia Pulp and Paper Co. at Charleston, S. C., and the world's largest paper board mill at Georgetown, S. C. installed by International Paper Co. This was topped off in 1937 by mills of National Container Corp. at Jacksonville, Fla., Rayonier, Inc., at Fernandina, Fla., and acquisition and expansion of the Halifax Paper Co. at Roanoke Rapids, N. C. by The Albemarle Paper Manufacturing Co. Later, in 1940, the St. Marys Kraft Corp.'s. mill was established at St. Marys, Ga.

With more than 4,000 miles of lines traversing the six states containing these 100 million acres of forests, the Seaboard had played a notable role in bringing in these mills with their huge investments. With this accomplished the carrier turned its consideration next to what could be done to assist these on-line plants to function successfully in the future.

After searching study the Seaboard's Industrial Department concluded that "timber is a crop." Since agricultural agents had for years been successfully used to correlate railroad and farm activity to mutual advantage, the road followed the inescapable analogy and became the first to employ a full time forester to serve the users of its line.

First Industrial Forester

At that time, many Class I railroads had foresters whose main duties pertained to the acquisition or production of forest products for the carrier's own use. The Seaboard's newly established "industrial forester" was to devote his efforts to serving those industries that had invested millions of dollars in new plants giving employment to thousands of

local people, and, additionally, creating a market for forest thinnings that would make economically feasible the reforestation of that area.

In the early stages of its industrial forester operations, Seaboard conducted demonstrations of good cutting practices, and cooperated with these new pulp and paper mills in setting up their forestry organizations and fire control programs. When the mills had established their wood departments, Seaboard reached out to the adult farmer and other owners who had trees on their lands. A Forestry Bulletin and educational materials put into publication now reach 13,000 farmers, land owners, foresters and others. It features new developments and advanced practices, extending specific recognition to individuals and ideas.

While the Seaboard initiated its program ten years ago, its planning was so essentially sound that cutting demonstrations stressed in 1937 are still being set up on a cooperative basis with state and extension services.

Looking deeply into the forestry situa-



Dallas T. Daily
Shapes plans for . . .

these areas and in encouraging the establishment of industries based upon wood utilization, no agency has exerted a greater influence than the Seaboard Air Line Railroad.

This carrier's appreciation of its territory has resulted in its serving mills producing one-third of the South's and 13 per cent of the nation's wood pulp. Equally important, the road's progressive measures have put the Seaboard out in front in public service in connection with reforestation.

The Seaboard's reforestation program and its part in bringing in these wood consuming plants actually began sometime before 1937. At that time, the acquisition of sites in an influx of new, large paper mills into the road's territory along the eastern seaboard had lifted a negligible capacity by more than 3,700



Robert N. Hoskins
. . . the Industrial Forester.

tion in 1945, Seaboard evolved a double-barreled program for both the present and future. For today, it was to continue its work with the adult farmer and landowner in cutting practice demonstrations, and exhibitions of what can be accomplished with mechanical aids.

Among the problems of current times, the Seaboard has influenced the establishment of adequate state-wide fire control systems. While contributing to the concerted effort to meet today's situations, the Seaboard is working on a "long-pull" basis.

Since the average Southern farm contains a substantial percentage of forest land—for example, in Virginia over 50 per cent of forest is in farm woodlands—it follows that the vocational agricultural student will inescapably deal with forestry since it is (or should be) an essen-



New methods introduced include use of mechanical tree planter, capable of planting 10,000 trees a day.



Portable power saw is tested at a cooperative forestry demonstration which featured mechanization.

tial economic factor on every Southern farm.

Deducing this, the Seaboard first went to the state supervisors of vocational agriculture and the state forest services. Receiving encouragement, it turned to wood using industries and the Southern Pulpwood Conservation Association with an idea for a cooperative forestry program. This idea met with an enthusiastic acceptance and the road launched its program with the Future Farmers of America.

Training

These are older farm boys enrolled in vocational agriculture and receiving instruction in the class room that is supplemented by a teacher-supervised farming program on the boys' own farms 12 months of the year. They carry their forestry instruction into woodlands. Each state is divided into districts, and in competition those outstanding in districts are judged for effectiveness of their woodland's management. In 1945, 46 and

47 state winners received trips to state-operated forestry training camps; and this program is to be continued annually.

The outstanding contribution of the Seaboard to forestry within its own area has been recognized by the National Future Farmers of America, which, last year awarded an Honorary American Farmer's Degree to Robert N. Hoskins, the Railroad's industrial forester.

The effectiveness of this work with FFA has been well demonstrated by a 200 per cent gain in boys' individual projects in Florida and increases in other states of 65 per cent and above.

The Seaboard's acute interest in the paper industry has been well founded. In 1947 no less than 3,575,000 tons of pulpwood were delivered to mills on their line.

When this wood tonnage came into being with the Union Bag & Paper Corp. in 1936, the carrier actually had no cars specially constructed for this business. In that year 50 wood racks were created by conversion of other type cars and during 1937 the conversion of flats and gondolas stepped up these special type cars to 350.

The conversion of cars to pulpwood use has been continued each year so that the current production of some 300 cars will bring Seaboard's fleet of wood racks to approximately 1400. While converting cars, the road has likewise effected improvements. It found that siderails and iron braces supporting the car ends interfered with both mechanical loading and unloading, *i.e.*, the simple act of pushing the pulpwood lengths from the car onto the mill's pulpwood conveyor. The result has been a newly designed end rack and sloping steel floor car without these interfering features.

Modern Cars

It is the use of the box car that both railroad and pulpwood shippers are hoping to escape. The box car has been used by reason of necessity, and its added cost in handling is readily understood from the fact that the open rack car may be

(Continued on page 180)



To facilitate loading and unloading, Seaboard designed new woodrack cars like that shown above. Current production will bring road's fleet to about 1400.



Seaboard officials, G. B. Rice and Col. H. B. Anderson, left, watch Virginia's Gov. W. M. Tuck congratulate an FFA forestry winner from South Carolina.

At Your Service

IN ATLANTA



ATLANTA: ideally equipped as the central point from which to carry on manufacturing, distributing and selling activities to Georgia and the Southeast:

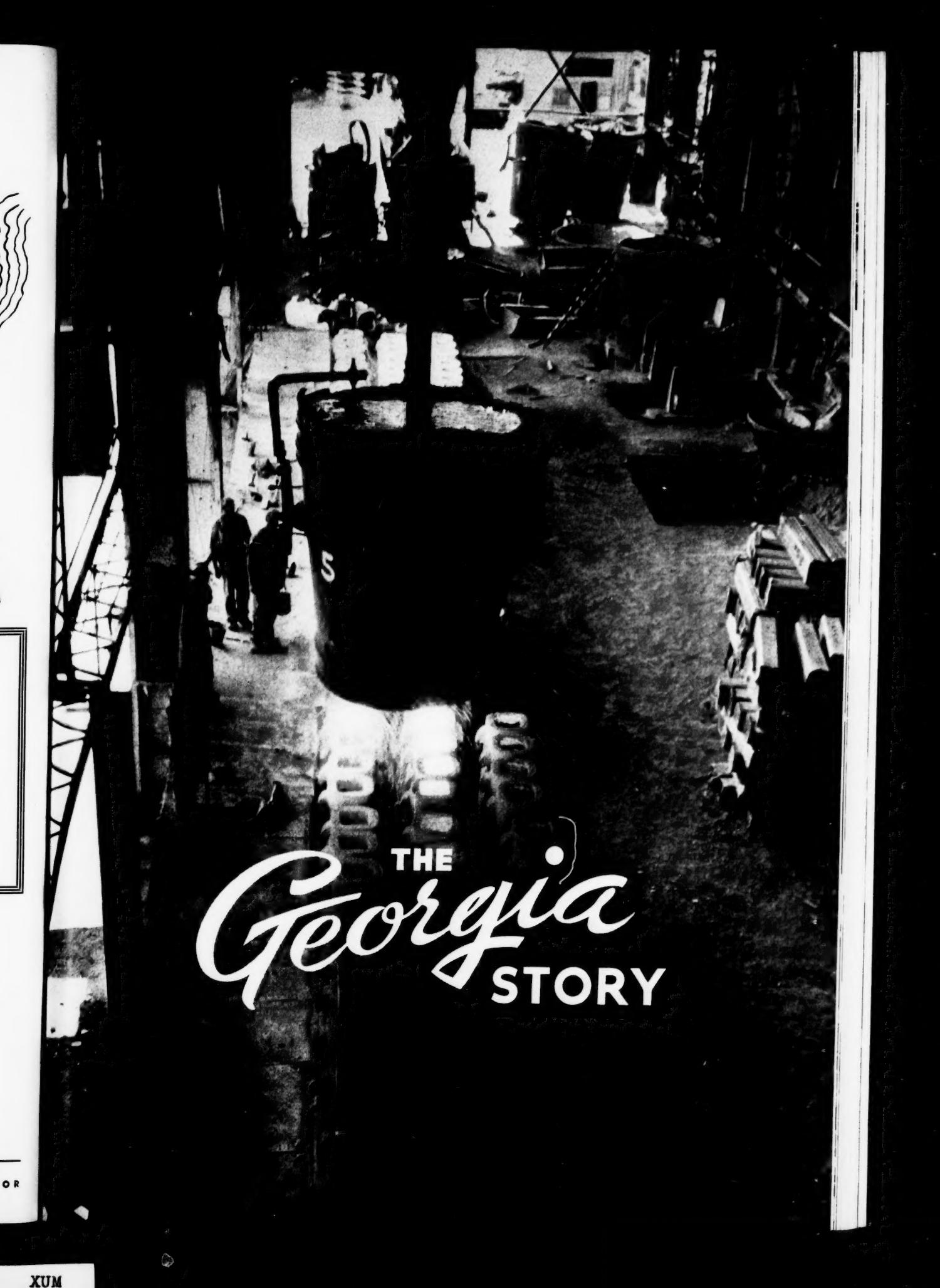
- **Largest Railroad Center in the South**
15 main lines of 8 railroads.
- **3rd Largest Telegraph Center in the World**
92 direct trunk circuits to leading cities.
- **2nd Busiest Airport in the Country**
Including 150-160 scheduled airline flights daily.
- **3rd Largest Telephone Switching Center**
1,353 circuits to 151 cities.
- **Leading Sales and Distribution Center**
Over 3,000 branch factories, warehouses, and division offices of nationally known organizations.
- **Ideal Climatic Conditions**
45-year average annual mean temperature 61.2°.

We count ourselves fortunate to be sharing in the development of what has been aptly called "America's greatest economic frontier"—to be growing in stature with Georgia and the South.

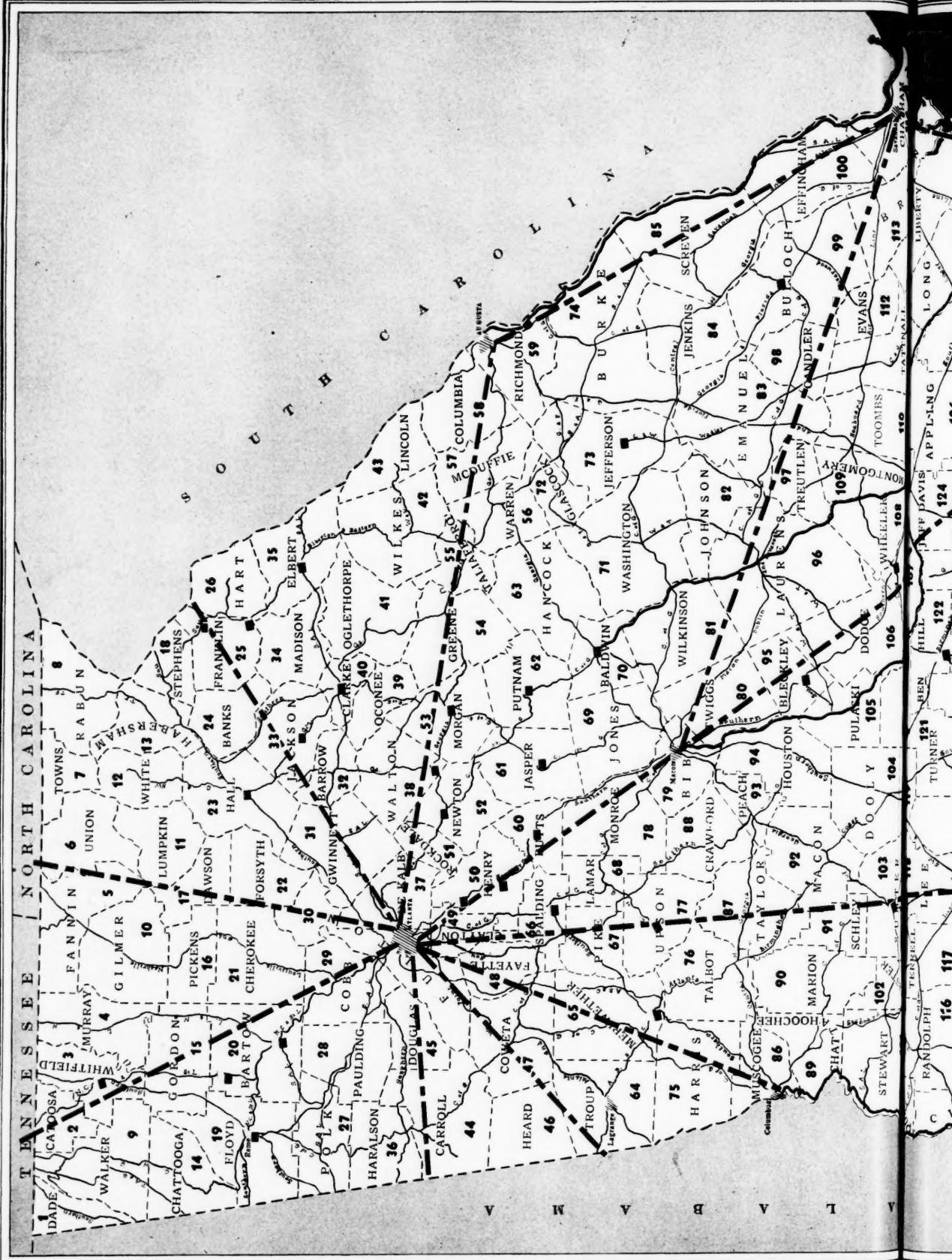
The resources of this bank and the hearty cooperation of its staff are yours to command.

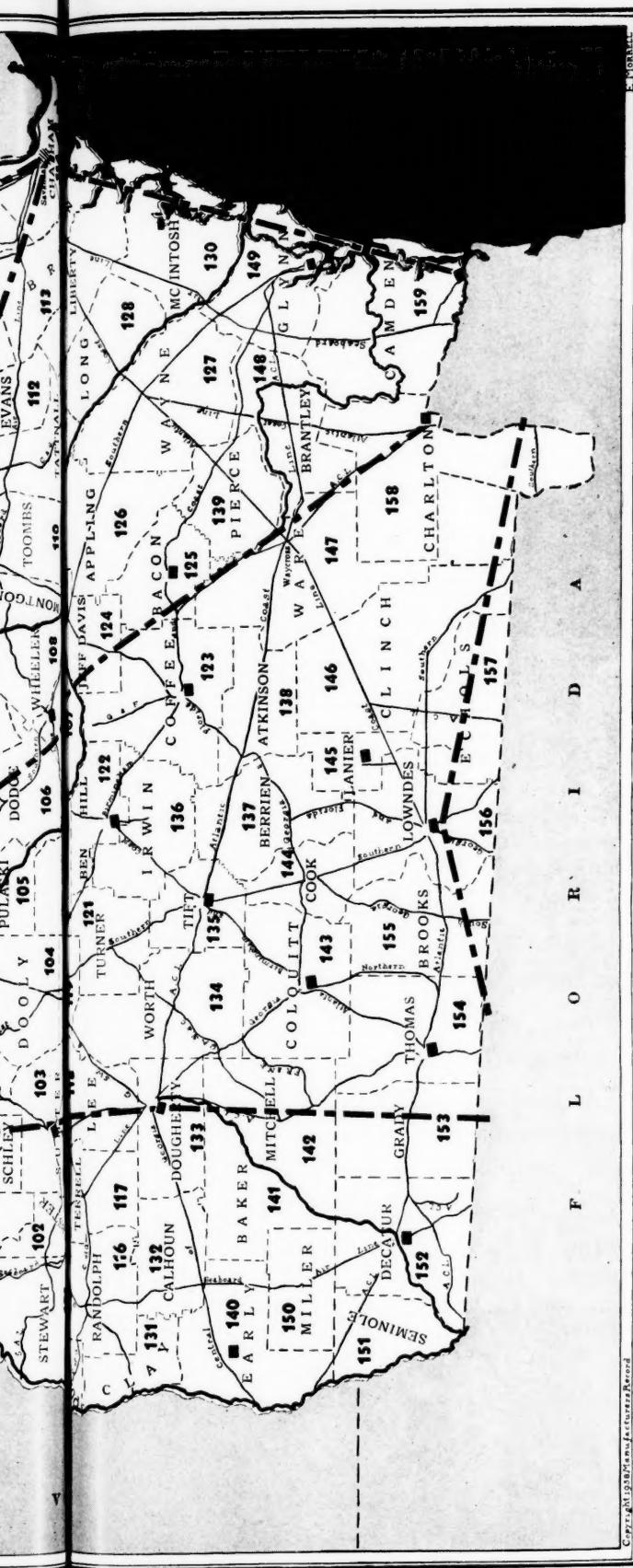
The *Fulton* NATIONAL BANK
COMPLETE SERVICE AT 5 OFFICES IN METROPOLITAN AREA OF ATLANTA

MEMBER FEDERAL RESERVE SYSTEM
MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION



THE
Georgia
STORY





GEORGIA

Its principal raw materials and transportation facilities.

Mineral

Counties in which mineral is commercially produced

- Asbestos—3, 12, 13, 21, 32, 65
- Barite—20
- Bauxite—20, 81, 103
- Clay—1, 3, 9, 12, 14, 15, 19, 20, 23, 24, 29, 37, 59, 70, 77, 79, 96, 137, 154
- Coal—1, 9
- Crushed stone—37, 50, 56
- Feldspar—61
- Flagstone—5, 9, 16, 20, 29
- Fuller's earth—80, 81, 152, 154
- Gold—8, 11 to 13, 17, 21, 22, 23, 31, 43, 57
- Granite—4 to 8, 11, 13, 16, 21, 28 to 31, 34, 35, 37, 41, 43, 44, 50, 54, 56, 58, 60, 63, 64, 75
- Graphite—13
- Halloysite—14

Iron Ore—9, 20, 27
Kaolin—59, 63, 70 to 72, 80, 81, 87
Kyanite—8, 13, 16, 21

Lime—19, 20
Limestone—2, 3, 8, 10, 15, 16, 19, 20, 27, 94, 95, 133
Manganese and manganese ore—11, 19, 20, 43

Marble—16, 21
Mica and micaeous minerals—13, 16, 21, 26, 35, 39, 68, 77, 78
Ocher—20

Olive—8
Portland cement—20, 27, 94
Sand and gravel—12, 20, 30, 56, 59, 61, 76, 35 to 89, 107, 108, 114, 123, 130, 140, 154, 157

Serpentine—58
Sillimanite—26, 34, 35
Slate—15, 20, 27
Feld and soapstone—1

Tripoli—3, 1, 11
Vermiculite—3, 37, 61

Timber
Longleaf-slash—71, 82 to 99, 104 to 112, 118 to 124, 126, 131 to 138, 140 to 144, 150 to 156

Longleaf-slash-cry press—99, 100, 111, 113, 123 to 130, 137 to 139, 145 to 149, 156 to 159

Shortleaf-hardwoods—1 to 20, 22 to 27, 31 to 35

Shortleaf-loblolly-hardwoods—3, 4, 14 to 16, 19 to 21, 27 to 32, 35 to 47, 50 to 58, 62 to 65, 68 to 70, 75 to 78, 80, 86, 89 to 91, 95, 101 to 103, 116, 117

Loblolly-hardwoods—35, 38, 41 to 43, 47 to 53, 56 to 61, 63, 65 to 74, 77 to 81, 87, 88, 91 to 94, 96, 104, 114, 115, 117, 118, 129 to 133

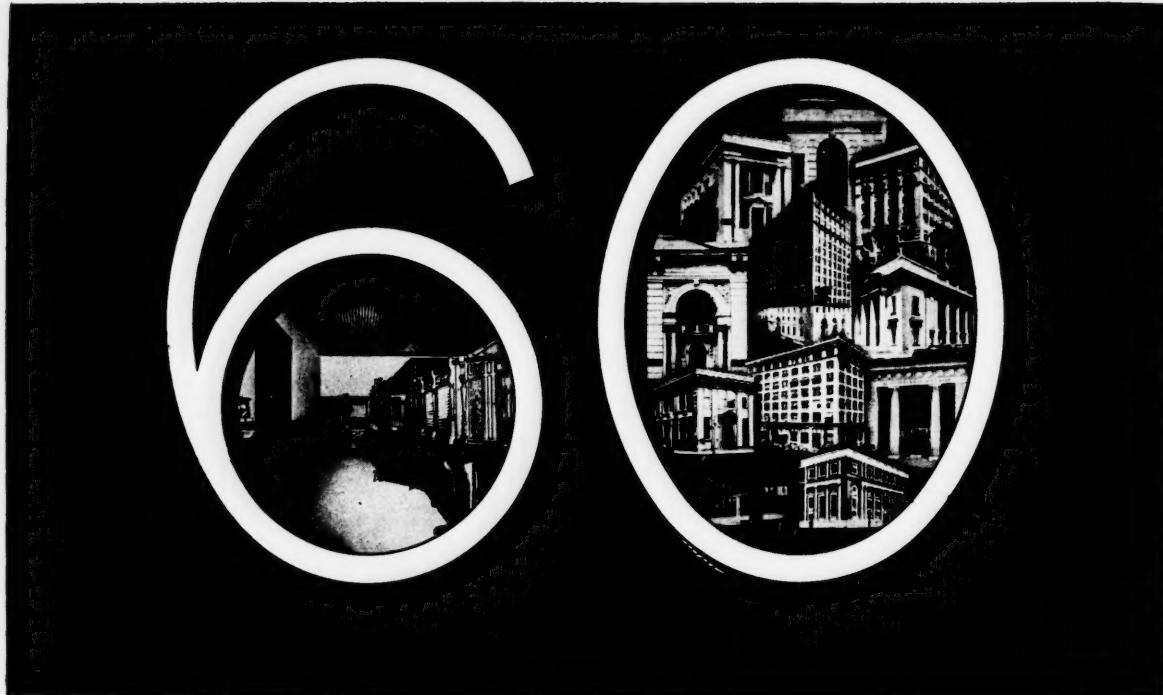
Naval stores—32 to 35, 87, 96 to 100, 104 to 114, 119 to 122, 124, 126 to 130

Natural gas is available for consumption in the following counties—15, 19, 20, 27, 30, 36, 41, 45, 47, 49, 50, 66, 68 to 70, 77 to 79, 81

Agricultural products such as cotton, corn, peanuts, sweet potatoes, etc., which are used for industrial purposes, are grown in almost every county.

Railroads

Navigable Rivers
—■— Airports



THE BANK THAT GREW AS GEORGIA GREW IS HELPING GEORGIA GROW

If you are interested in Georgia — perhaps it can help you

Behind Georgia's greatest statewide bank is a sixty-year history of intimate relation.

Citizens & Southern service is provided in ten cities through fifteen offices and banks.

Averageley every twentieth man, woman, or child in Georgia is a Citizens & Southern customer.

Georgia is studded with hundreds of industrial plants and agricultural developments which stand as proof of C & S banking co-operation.

If you are interested in locating in Georgia — the knowledge and experience of our sixty years is yours for the asking.



THE GEORGIA MARKET

With the increase in value of production in Georgia, retail sales for the state in 1948, based upon current estimates, should amount to approximately \$1,300,000,000 with personal income expected to reach \$2,850,000,000.

These estimates aptly show the encouraging state of the Georgia Market as the figure for retail sales is more than twice that reported to the Census in 1939. Dominant increases, both relatively and in total, are shown by the food, general merchandise and automotive classifications. In 1939, these three groups made up 52.95 per cent of retail sales while the 1948 estimates total 59.2 per cent. (Distribution of these sales by type of business is estimated in the table on this page together with the actual 1939 totals from the census.)

One factor in this is the rather sharp readjustment in distribution of population between the intensely urban areas and the small town and the rural areas. The estimated 1948 civilian population is 3,130,574—only slightly larger than the 1940 census total of 3,123,723. But the estimates for distribution by major urban areas indicate that the 27 cities have an estimated increase of approximately 137,000 in population.

From consideration of current estimates of 1948 personal income in Georgia, placed at \$2,850,000,000, certain other estimates may be deduced. The principal item in this total is, of course, wages, and salaries in trade, manufactures, and services businesses which are expected to amount to approximately \$1,132,000,000. Withdrawals by partners and owners of unincorporated businesses and self-employed individuals should add about \$155,000,000 to the earned total, while employees of local, state, and federal government will draw salaries of about \$295,000,000. The balance of \$1,269,000,000 represents farm and property incomes, dividends, and interest. Corporate earnings not distributed to stockholders are not included in the personal income total.

In 1939, there were 27 cities with retail sales of over three million dollars. These centers included 27.22 per cent of Georgia's population, but transacted 65.07 per cent of the retail trade, population ranging from 3,591 upward. Since 1939, there have been considerable shifts in population, the most significant

being a movement from rural to urban, as a result, largely, of occupational changes related to war industry, which drew heavily on rural areas.

The bulk of these changes tends to be permanent and have resulted in a change in the basic pattern of agriculture, in that less people produce more on Georgia farms than formerly. The increase is measurable in tons, as well as dollars. The apparent effect of these shifts is that the 27 cities now include 31.53 per cent of the estimated 1948 Georgia population. They are expected to transact 71.00 per cent of the retail trade in 1948.

Social security figures, now available by counties, indicate that for the first quarter of 1946, the counties containing these 27 cities had 68.31 per cent of the covered employment in Georgia. Estimates of retail sales for each of the 27 cities (except those included in the Metropolitan Atlanta area) are also shown in the table. This includes an index of wage levels for covered employment based on county data for 1946 in which the Georgia average for the first quarter of the year is taken as 100.

While it is recognized that the data on which this index is based has some imperfections, it is the only data at the county level which provides actual figures of a wage component of the income structure for a date subsequent to the 1940 census. Stated as an index, it does provide a partial measure of relative income level between one county and another.

The increases in Georgia income and retail sales reflect both the higher values and tonnage of agriculture and the increased industrial production in all parts of the state. In making the estimates of both income and retail sales, current trends in wages and prices have been considered.

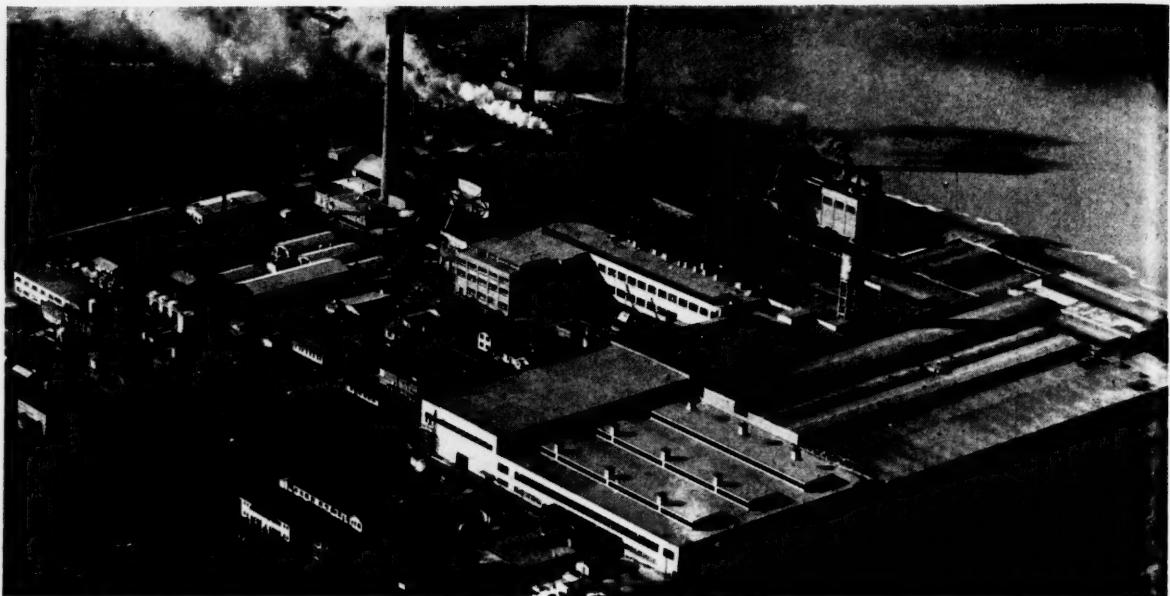
The wage assumption used is that wage rates and averages will be slightly higher than during 1947, while the price expectation is that average and index values will decline during 1948 to levels about 15 per cent below those for 1947.

The assumptions used are intentionally conservative. While current wage trends bear out the assumptions, it is still questionable what course prices will take. The current price situation is firm. However, polls of business executives indicate that lower prices are expected in the latter half of the year.

ESTIMATES OF 1948 GEORGIA RETAIL SALES COMPARED WITH 1939 SALES

	1948 Estimate (\$000)	1939 Actual (\$000)
Food Group	\$331,630	\$140,066
General Stores with food	34,850	25,906
General merchandise group*	218,000	98,237
Apparel group	70,200	43,154
Furniture-household-radio	52,000	29,826
Automotive group	229,700	92,202
Filling stations	92,700	49,350
Lumber-building-hardware group	79,300	37,900
Eating and drinking places	52,650	27,333
Drug stores	50,830	25,540
Other stores	88,140	55,251
Total, all stores	\$1,300,000	\$624,765

*Includes department stores.



The plant of the Union Bag and Paper Corp., at Savannah, is the world's largest integrated pulp, paper mill, bag, and box factory.

MANUFACTURING

In the three centuries of its history, no trend has been more important to the progress and economic welfare of Georgia than its transition from almost complete dependence upon agriculture to an economy that now places at least equal emphasis upon industry.

Nowhere is this change more apparent than in the shady, comfortable towns and small cities scattered across the state. In these once easy-going locales, the tempo of living has been stepped up, populations have swelled and a change in the basic pattern of agriculture has been wrought.

In city after city, town after town, plants and factories are silhouetted against the economic horizon. As a result, there has been a heavy movement of workers to these new industrial centers, leaving fewer people to actually produce more on farms.

Even those acutely aware of this change in Georgia's economy may not know the full extent of this industrial growth. But the fact is that income from manufacturing now exceeds that derived from agriculture. In 1946, as reported by the *Blue Book of Southern Progress*, manufacturing payrolls amounted to \$444 million and this was only a portion of the total manufacturing income, a substantial balance consisting of dividends and surplus retained by corporations. In the same year, income from agriculture was \$359.3 million.

The continued expansion of industry in Georgia is clearly shown by a comparison between the years 1939 and 1946. In 1939, the number of manufacturing establishments in the state numbered 3,150 with an employment of 157,800 wage earners. Wages for this

group totaled \$108,083,478 while the value of all manufacturing was \$677,402,657.

In 1946, a record growth was apparent. The number of manufacturing establishments had increased to 4,488, employing 230,800 wage earners. Wages of \$345.1 million were three times as great as in 1939 and the value of manufacturing, totaling \$1.6 billion was almost a billion dollars more.

This rapid industrialization is further revealed by the continued increase in power requirements throughout the state. In 1939, production of electricity by all sources reached 1,612,092,000 kilowatt hours. By 1946, this had jumped to 3,042,272,000 kilowatt hours. With ample power being a virtual life line of industry, still further expansion of power facilities is planned by those companies serving the state.

Meanwhile, as ever increasing numbers of organizations located on manufacturing sites in the state, employment has moved steadily upward. In 1939, the number of wage earners stood at 157,800. By 1946, the figure had soared to 230,000. But for Georgia this was not yet the peak. In January, 1948, employment, as reported by MANUFACTURERS RECORD in its "Southern Business Outlook," had moved still higher, registering 259,400 wage earners.

Throughout its industrial growth, textile plants have comprised Georgia's leading industry, employing the most workers, contributing the greatest volume of wages, and having the highest dollar value of products. Expansion in this industry has likewise been notable. From the 217 plants operating at the annual rate of 12.4 billion spindle hours in 1939, the



The Lily-Tulip plant at Augusta, is one of many organizations which have moved South since 1936 because of the state's wealth of raw materials for the pulp and paper industry.

industry had grown in 1946 to include 264 plants operating at an annual rate of 15.8 spindle hours.

In 1946, the value of textile manufactured products was \$508 million, nearly \$125 million more than food products, the state's next leading industry. The textile group's more than 100,000 workers were approximately 38 per cent of the state's total wage earners. But most significant perhaps is the fact that the \$158.6 million paid in wages by the textile industry in 1946 is \$50 million greater than the total wages paid by all industry in Georgia in 1939.

Closely allied to the textile industry and peculiar to Georgia is the chenille bedspread industry, which grew from the hobby of a Georgia farm girl into a \$122,000,000 a year business. The industry is centered in Dalton, Ga., which according to the Georgia Agriculture and Industrial Development Board, now has 21 factories within the city and 54 more within a radius of 50 miles. The industry consumes more than 30,000 bales of cotton a year and gives employment to more than 10,000 workers.

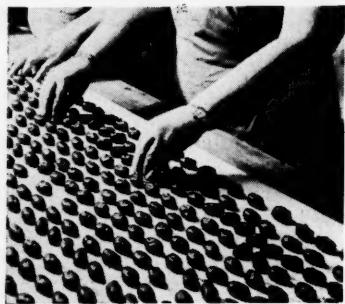
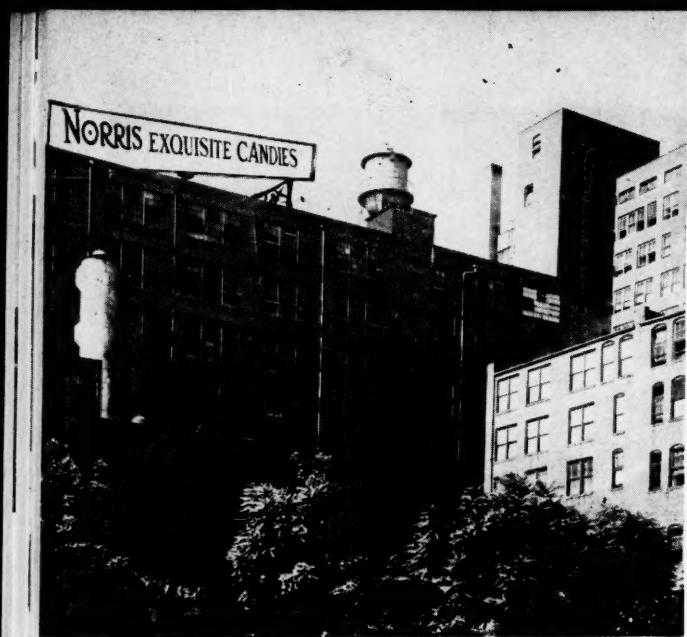
And the growth of this industry has meant for Georgia the impressive rise of a growing list of related businesses in the Dalton locality. The Georgia Board reports that a dozen firms have been established to wash the spreads; machine plants have opened to build and repair chenille machinery, and yarn and dye factories have sprung up to furnish these materials.

But an even greater diversity of industry has been the aim of state business, industrial and educational leaders. Aware of the great potentialities of the state's resources and the excellent supply of labor, a move-



Right, above—The Columbus Cotton Ginning Co. was established in 1869 at Columbus. Below—A scene in a plant of the Clark Thread Co., which recently erected a new plant at Albany.

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Candy manufacturing plant of Norris, Inc., is in the heart of the Atlanta business district and is the largest in the South.

ment was begun in 1945, aimed at developing local industries even further, and bringing still more industries into the state.

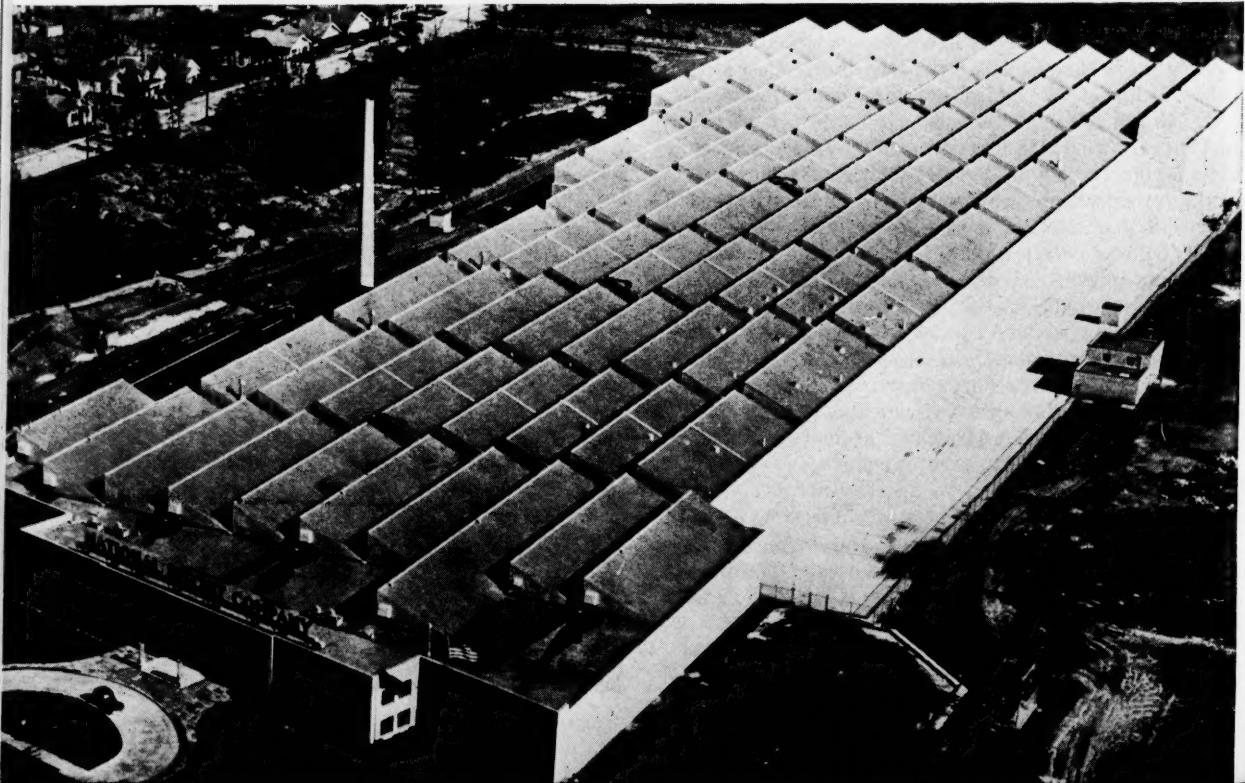
Local mass meetings for the purpose of organizing permanent committees on industrial development were held in upwards of two hundred Georgia communities as a result of nine district meetings sponsored by the Industry Panel of the Agriculture and Industrial Development Board. The meetings were held to outline the aims of the panel: 1. the creation of new industries and the expansion of those already in existence, to enlarge payrolls, and provide jobs for returning servicemen and women. 2. the initiation of a national campaign to attract out of state industries.

For the Industry Panel, an Advisory Council was set up, composed of 100 of the state's leading business and industrial leaders. This body was to advise local committees in developing a coordinated industrial program.

The results of this concerted activity may be seen in a report recently released by the Agricultural and Industrial Development Board which stated that from September 1, 1944 to January 1, 1948 the number of new industries in the state had increased by 1,454.

But to establish still further the need for new types of industry desired in Georgia, the Agriculture and Industrial Development Board recently employed a national firm of engineers to make a thorough survey of the state industrial scene. Research by this firm disclosed the following major groups of industries in which additional growth and expansion was desirable: apparel and finished fabric products; automotive equipment; pulp, paper and allied products;

Below—National Biscuit Co. plant at Atlanta is one of that company's national group.



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At Columbus, the mill of the Bibb Manufacturing Co. operates 121,624 spindles and contributes heavily to Georgia's leading industry—textiles

chemicals and allied products—soap, paint, and fertilizer; food and kindred products; wood products—furniture, crates, and boxes; iron and steel and their products; leather and leather goods; stone, clay and glass products and many miscellaneous products.

Within this group, sharp gains in employment and in the value of manufactured products have been registered since 1939. However, opportunities for profitable development are still abundant.

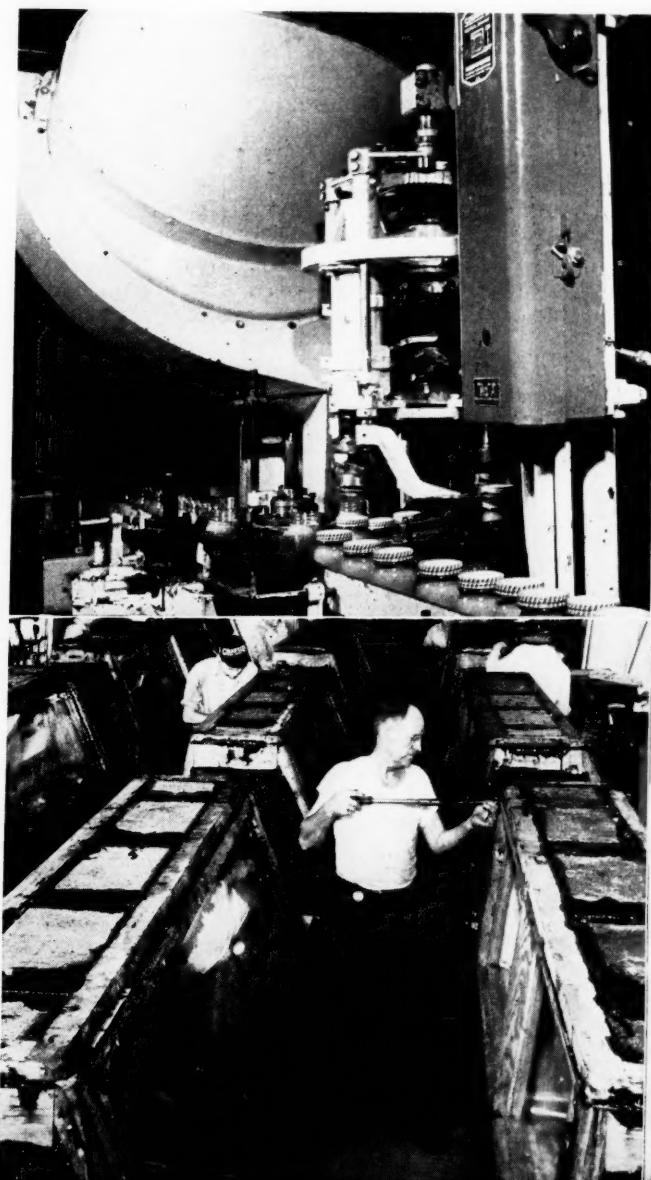
Next to the production of textile products, the food processing industry has the second largest annual dollar value of products. Since 1939, the number of establishments engaged in the processing of food products has increased from 631 to 684 in 1946 with an accompanying increase in wage earners from 11,600 to 20,000. Wages have increased from \$8.1 million to \$30.4 million in 1946, while the value of manufactured products reached \$385.2 million, almost tripling the 1939 total.

This notable expansion of the food industry is encouraging to a state which imports a large part of its consumed processed food stuffs. More significant, still, is the fact that this growth shows that increased use is being made of Georgia's wide range of agricultural products.

Recent years have also seen further expansion of the apparel industry with the number of finished garment plants doubling since 1939. Since that year the number of plants has grown from 157 to 373 in 1946. Within that same period, employment of wage earners rose from 17,300 to 26,000 while wages increased three-fold, from \$9.9 million to \$31.8 million. In turn, the value of the manufactured products increased almost three times, from a 1939 total of \$53.6 million to \$145.1 million in 1946. Thus, in product value, the apparel group is Georgia's third-ranking industry.

With the rapid growth of Georgia's furniture industry the state's 21,000,000 acres of commercial forest area have reached a new peak in importance. To supply the needs of the furniture manufacturing plants and the pulp and paper mills, the number of lumber establishments increased from a 1939 total of 657 to 1,900 in 1946. In that time, employment more than doubled and the value of production in-

Below, top—Capping peanut butter at Cinderella Foods, Dawson.
Bottom—Electrical Refrigeration cases being made at the Warren Co., in Atlanta.





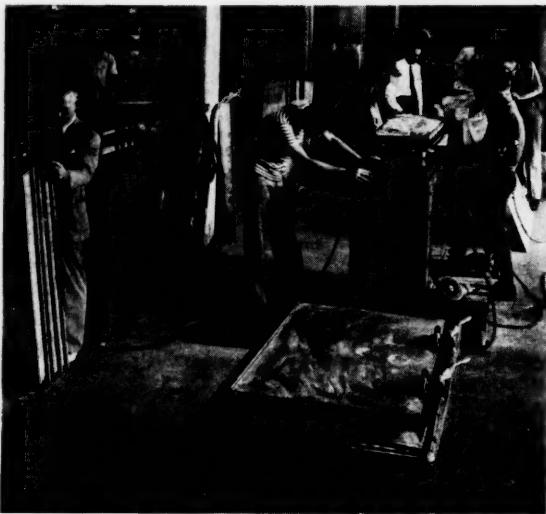
Battery of roasters at Tom Houston Peanut Co., Columbus, prepare Spanish and Virginia peanuts for blanching.

creased from \$33.8 million to \$141.5 million.

Though not listed among the top leaders, Georgia's chemical industry is especially important, all the more so since it embraces the all-important naval stores industry. With production valued annually at \$23,000,000, Georgia, since 1940, has been the leading supplier of naval stores, producing more than 60 per cent of the nation's supply. In the overall chemical industry, the number of plants in Georgia declined from 714 in 1939 to 241 in 1946. However, as explained in the 1948 *Blue Book* "what appears to be a contraction was in reality an expansion through consolidation. . . ." The increase in fact was \$10 million more than the 1939 production value of \$69,000,000.

In all its expanding industries few offer greater economic promise for Georgia than the pulp and paper industry. With its 21,000,000 acres of commercial forest area, the state's resources offer unusually fertile opportunities for even greater expansion. Ac-

Filter boxes are manufactured at the Atlanta plant of the Armour Insulation Co.



cording to the state Agricultural and Industrial Development Board, the total net volume of saw timber in the state is about 40 billion board feet of which 30 billion are pine and 10 billion are hardwood and cypress. Its total net volume of cordwood is 86 million cords, of which 40 million cords are pine, 28 million pulping hardwoods and 18 million non-pulping hardwoods and cypress. In 1946, production of wood pulp in Georgia mills was 422,648 tons while production of paper and paper board reached 353,885 tons.

From 30 establishments in 1939 the industry, in 1947, included 50 units engaged in the manufacture of pulp and paper. The number of wage earners from 1939 to 1946 increased from 3,100 to 6,500. During that period wages soared from \$2.9 million to \$11.9 million while the value of production rose from \$28.5 million to \$67.7 million.

Experts in the field, aware of the great resources at hand, have predicted that the pulp and paper industry in the South would soon be a billion dollar a year business. In this, Georgia would share substantially.

This ready availability of raw forest materials has also been responsible for the rapid growth of the furniture manufacturing industry. The ease with which these raw materials can be converted at the source into finished products has been an attractive feature to furniture manufacturers considering a Georgia location. The result of this has been greatly increased production with value of the finished product growing from \$21.9 million in 1939 to \$59.9 million in 1946.

For this industry, the forests of Georgia can supply the following classifications of timber: gums, oaks, black walnut, poplar, birch, beech, elm, black cherry, red maple, and pine.

In a survey of 16 furniture plants in Georgia made under the direction of H. E. Denison of the State Engineering Experiment Station, Georgia School of Technology, it was found that only 7 had to obtain a part of their timber from outside their district.

While growth of furniture manufacturing and several other industries producing durable goods has been impressive, Georgia looks to even further development in the manufacture of durables.

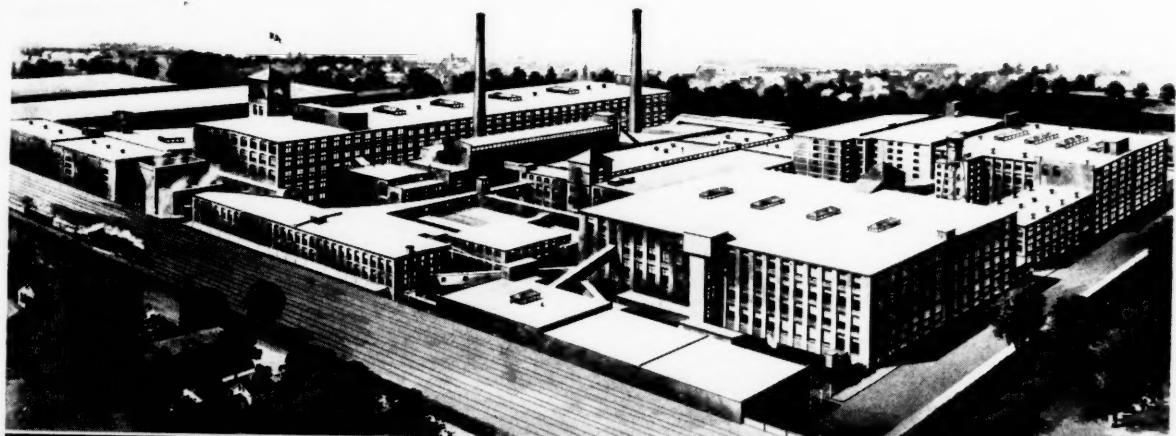
Like the majority of its sister states, Georgia still has much room for development of the iron and steel industry and for the manufacture of machinery. Plants producing raw iron and steel rose from 47 in 1939 to 57 in 1946. At the same time, the value of manufactured products increased from \$14.9 million to \$39.9 million.

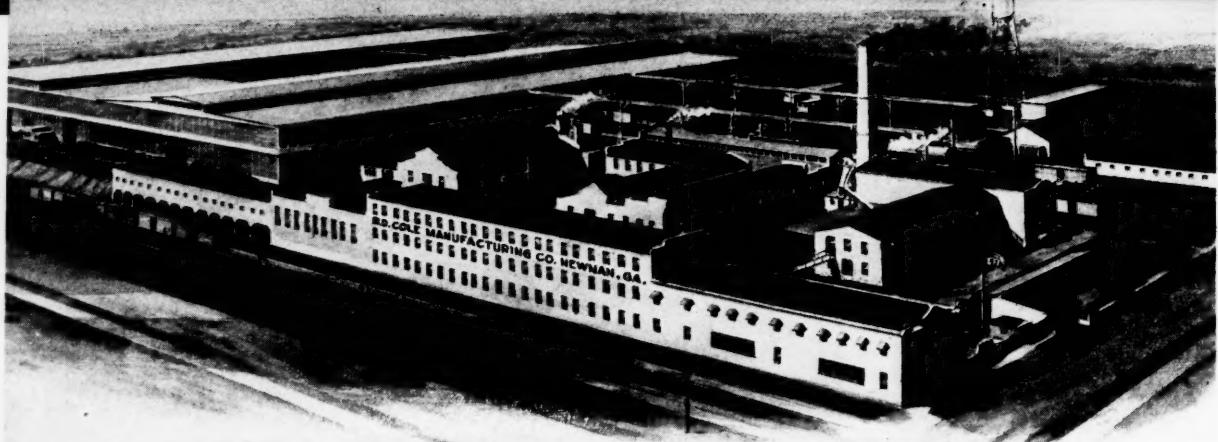
Manufacture of machinery during this span of time likewise showed an upward trend. However, the need for further expansion is obvious and there is virtually unlimited opportunity for further industrialization in this field. From 1939 to 1946 the number of plants engaged in this work increased from 84 to 97 while

Opposite page, top—Savannah Sugar Refining Co.

Middle—The Atlanta plant of the Fulton Bag & Cotton Mills is one of seven operated by that company.

Bottom—At the Atlanta plant of the Atlantic Steel Co., fence, nails, wire, forgings, and other products are made.





Part of the Georgia iron and steel industry, the plant of the R. D. Cole Manufacturing Co., at Newnan, manufacturers steel tanks and boilers.



Auto trailers and other metal parts are manufactured at the Knox Industries' plant at Waynesboro.

the product value scored an impressive gain, rising from \$9.1 million to \$36.2 million.

Though not belonging to the durable goods group, Georgia's printing, publishing and allied industries rank next in order of importance, dollar-wise.

In the number of trade magazines and periodicals published, the city of Atlanta ranks third in the nation, giving Georgia a prominent position among state leaders in this industry.

In 1946, establishments engaged in this work numbered 344 and value of products in that year amounted to \$36.2 million, more than double the 1939 figure.

Rising in importance in the durable goods category is the manufacture of stone, glass and clay products. From 1939 to 1946 the number of plants and establishments increased from 105 to 177 and the value of products more than doubled, extending from \$13.2 million to \$33.8 million. The state's resources offer a particularly strong basis for an even greater finished products industry in this field. In 1946, Georgia led all other southern states in the production of clay with the exception of Missouri. The value of this product, however, was more than \$10 million, almost three times as great as the value of the Missouri out-

put. And while Georgia was not a leader in the tonnage production of stone, the high-grade quality of its product gave it a \$8.5 million value in 1946, third highest among the sixteen southern states.

The close of the war has seen a notable expansion in plants manufacturing automobiles in Georgia. At Chamblee, Ga., the \$6,500,000 installation put into operation by General Motors has added greatly to the state's automotive production. Added strength to the industry came with the \$5,000,000 plant established by the Ford Motor Co., on an 82 acre site at Hapeville, Ga.

The extent of this growth has been impressive both in the increase in the number of plants and the value of finished products. From the 9 plants in operation in 1939 the industry had expanded to 17 installations in 1946. Accompanying this was a corresponding increase in product value, from \$15.1 million to \$33.4 million.

FUTURE OUTLOOK

As a springboard for bringing about further and continued expansion of productive industry, Georgia enjoys a sound foundation of going establishments.

Relative performance and growth of these industries during earlier years has already been described. Outlook for the future is no less bright. Preliminary figures being compiled for the 1949 *Blue Book of Southern Progress* indicate renewed flow of activity. The first quarter of 1947 has already been analyzed for this purpose, and discloses a healthy condition in practically all divisions of Georgia manufacturing.

While semi-finished textiles are not among the immediate objectives of the state's expansion program, their importance cannot be overlooked. This leading industry of the state, not only serves as a feeder for greatly desired expansion in apparel production, but also affords a vivid demonstration of the prosperity that awaits capital in all Georgia projects.

Speaking very recently before a New England chamber of commerce, Lt. Gov. Arthur W. Coolidge of Massachusetts made the following solemn statement:

"All through the Suwanee River region, news-

papers, public utilities, community projects, and government units are trying to attract outside industry. . . . Dixie Claghorns have already persuaded several New England woolen and worsted mills to move South."

The Massachusetts state executive went on to declare that the South was virtually kidnapping the Massachusetts textile industry, and that if the kidnappers should continue to be successful, New England mills would become "hollow shells."

To what extent Georgia may have added to industrial acquisition at the expense of another state is not of immediate record. That gains are being made, however, is beyond dispute. If textile production is found to have been maintained throughout 1947 at the rate of the first quarter, total for the year will be recorded at \$630 million, a gain of 20 per cent over the *Blue Book's* estimate of \$508 million for 1946. Results for the latest analyzed quarter follow:

GEORGIA TEXTILES
Jan., Feb., Mar., 1947

Industry	Branch	Plants	Employ- ment	Pay- rolls (\$000)	Materials, Power, etc. (\$000)	Value Added (\$000)	Value of Prod- ucts (\$000)
Yarns and cloth		159	94,136	\$47,072	\$63,852	\$61,349	\$125,201
Knitting		67	9,560	4,168	6,485	6,484	12,969
Finishing		9	3,037	1,389	3,005	2,910	5,915
Carpets		12	450	167	515	650	1,165
Hats		3	112	56	104	95	199
Lace, twine, etc.		16	5,174	2,723	6,404	5,589	11,963
Textiles		266	112,469	\$55,575	\$80,365	\$77,077	\$157,442

Additional factories for utilizing the state's great turnout of agricultural products in the processing of more food stuffs are on the expansion program. Food manufacture already constitutes an important part of productive enterprise, ranking next to textiles in value of products turned out. Nevertheless, a rapidly growing population and labor force offer full justification for expansion even beyond the impressive record shown as follows for the first quarter of 1947:

GEORGIA FOODS
Jan., Feb., Mar., 1947

Industry	Branch	Plants	Employ- ment	Pay- rolls (\$000)	Materials, Power, etc. (\$000)	Value Added (\$000)	Value of Prod- ucts (\$000)
Meat Proc.		59	3,489	\$1,911	\$24,045	\$4,717	\$28,762
Dairy Prod.		45	1,171	754	6,636	2,165	8,801
Canning		57	3,374	1,068	6,525	3,965	10,490
Grain Proc.		54	1,425	779	9,870	3,504	13,374
Bakery		82	3,856	2,551	4,939	5,797	10,736
Sugar Ref.		2	872	465	6,347	1,667	8,014
Confec.		56	2,180	1,207	4,157	3,402	7,559
Beverages		154	2,249	1,345	4,120	6,258	10,378
Ice, Others		125	4,315	2,488	12,113	10,195	22,308
Food Mfg.		634	22,931	\$12,568	\$78,752	\$41,670	\$120,422

Based on the above record of the first quarter of 1947, full annual production for that year should not run less than \$480 million, especially when it is taken into consideration that such industries as canning and beverages are at a low ebb in the earlier months of the year. Production in that amount would represent a 25 per cent increase over the \$385 million for 1946.

Similar analyses show consistent gains for the other manufacturing groups. Some gained more than others. Apparel, third ranking group in 1946, had lost this position to Lumber by the beginning of 1947.

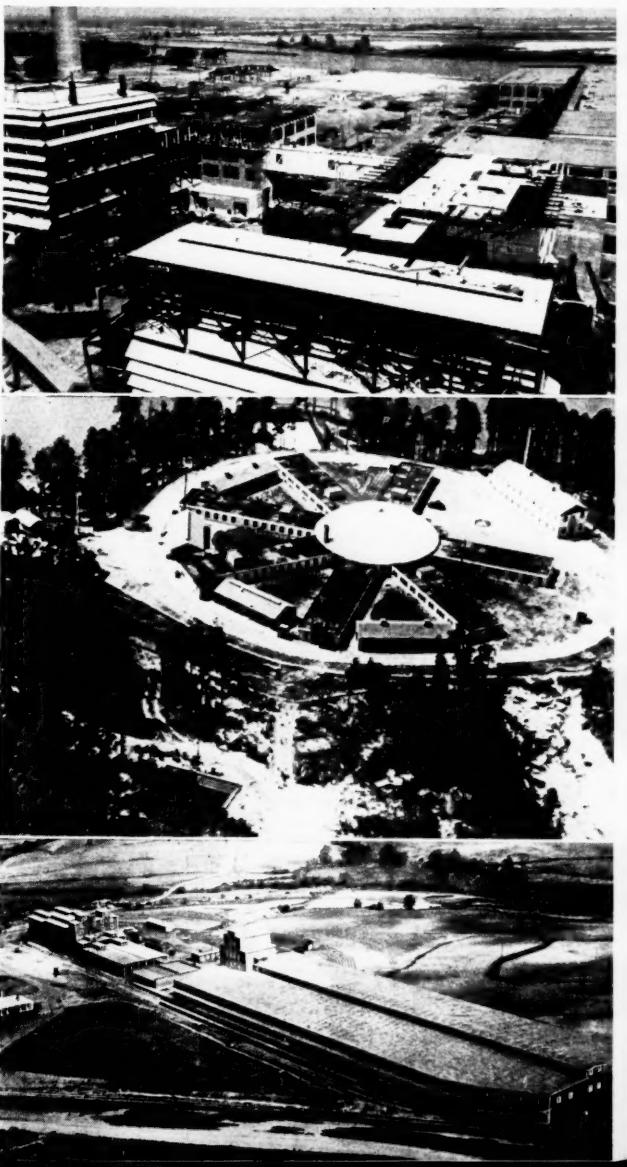
Based on first quarter figures, apparel manufacture should show well over \$150 million in value of products for the full four quarters of 1947. Upbuilding of this industry is high among the agenda of expansion plans, and viewed from the standpoint of materials and markets seems worthy of increasing attention.

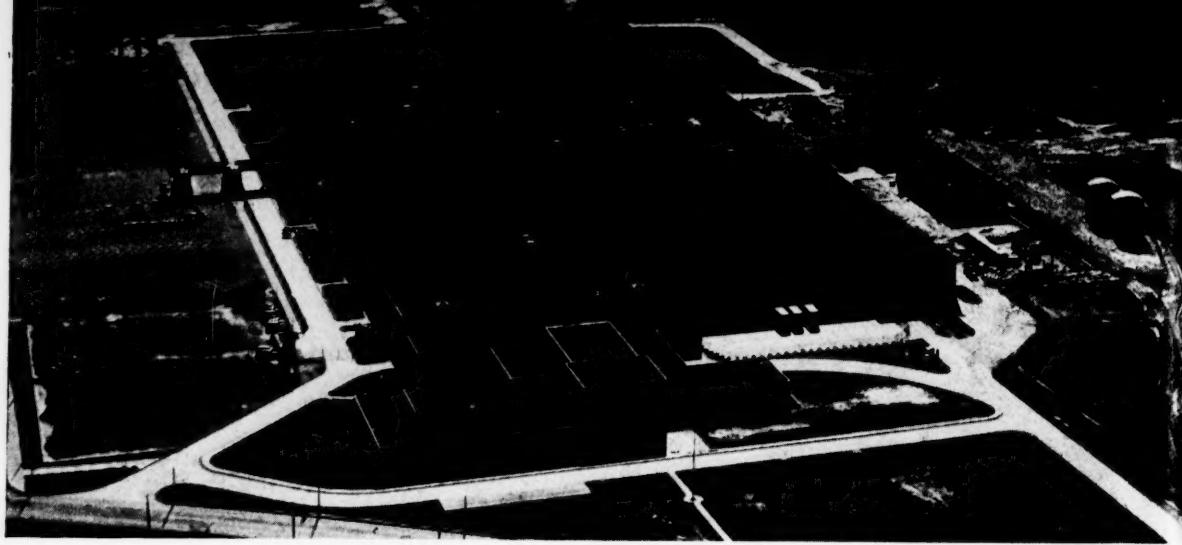
Lumber production of \$86 million in the first quarter of 1947 was traveling then at the rate of \$344 million a year, but there are some indications that final figures for the year will run somewhat below this level. There appears little question, however, but that Lumber will easily rank third for the year among all the manufacturing enterprises of the state. For the quarter, results are as follows:

Below, top—Plant of the Southern Paperboard Corp. at Port Wentworth, Ga.

Center—The Toccoa plant of Le Tourneau, Inc., is one of the important units in that organization's group of plants.

Bottom—This fertilizer plant at Athens is operated by the Empire State Chemical Co.





At this assembly plant of the Ford Motor Co. at Hapeville, more than 350 cars and trucks are manufactured daily.

GEORGIA MANUFACTURING
Jan., Feb., Mar., 1947

Industry Group	Invested Capital (\$800,000)	Plants	Employment	Payrolls (\$800,000)	Materials, Power, etc. (\$800,000)	Overhead and Profit (\$800,000)	Value of Products (\$800,000)
Textiles	\$296.4	125	112,469	\$55,575	\$80,365	\$21,502	\$157,442
Food	133.3	633	22,931	12,568	78,752	29,102	120,422
Apparel	18.5	375	25,161	9,440	23,864	5,007	38,311
Chemicals	79.6	241	10,795	5,171	18,353	7,464	30,988
Paper	38.3	30	7,385	4,529	12,481	4,883	21,893
Printing	9.5	344	5,429	3,852	3,113	3,164	10,429
Pet. Coal	2.0	10	573	363	2,399	1,439	4,291
Leather	4.1	24	2,351	1,102	1,743	502	3,347
Rubber	2.5	5	147	56	606	644	1,306
Tobacco	3.4	8	589	110	380	283	773
Nondurables	\$587.6	1934	187,830	\$92,766	\$222,056	\$74,290	\$389,112
Lumber	73.3	1866	43,815	\$13,425	\$28,535	\$34,130	\$86,090
Primary Metal	22.3	33	4,572	2,411	16,674	1,961	21,046
Trans. Equip.	18.3	34	4,528	3,257	6,639	2,427	12,383
Machinery	21.3	97	5,747	3,313	3,866	1,813	8,962
Furniture	7.8	109	5,949	2,554	4,318	1,417	8,280
Stone, glass etc.	21.8	17	6,042	3,004	2,813	1,805	7,622
Fab. Metal	8.1	62	3,220	1,843	2,910	759	5,512
Misc. Mfg.	13.0	60	3,333	1,466	1,586	668	3,720
Elec. Mach.	3.4	17	1,338	734	963	535	2,232
Instruments	2.3	9	395	228	210	261	600
Durables	\$191.6	2464	78,939	\$32,235	\$78,574	\$45,776	\$156,585
All Mfg.	\$779.2	4398	266,769	\$125,001	\$300,630	\$120,066	\$545,697



This plant of Cluett, Peabody Co. at Atlanta is part of Georgia's large and expanding apparel industry.

Of the total manufacturing performed in the state, 31 of the 159 counties turn out considerably better than fifty per cent. In general, the industrial centers are concentrated in the western and north central portions of the state. However, several important centers exist in the eastern portion. Production in the 31 principal industrial counties, together with totals for the state are contained in the following table:

GEORGIA MANUFACTURING
By Principal Producing Counties

County	Population	First Quarter, 1947	
		Labor Force	Manufacturing Employment
Barrow	13,061	5,451	2,409
Barrow	25,283	9,362	2,188
Bibb	83,482	37,608	8,900
Carroll	21,156	12,343	2,110
Chatham	117,970	51,208	11,194
Chattahoochee	18,532	7,116	4,711
Cherokee	20,126	6,832	1,755
Clarke	28,398	12,901	2,514
Cobb	38,272	15,117	3,928
Colquitt	33,012	11,485	1,650
Coweta	26,972	10,940	4,007
De Kalb	86,942	36,683	1,257
Dougherty	28,565	13,628	3,427
Floyd	56,141	22,981	12,335
Fulton	392,886	179,975	37,786
Glynn	21,920	9,609	5,788
Gordon	18,415	7,363	2,174
Gwinnett	20,057	10,119	1,283
Haralson	14,377	5,065	1,698
Jackson	20,089	7,314	1,588
Meriwether	22,055	7,646	1,571
Muscogee	55,494	35,126	1,789
Polk	28,467	10,962	3,971
Richmond	81,863	35,821	7,289
Spalding	28,127	13,020	4,116
Sumter	21,502	9,660	1,114
Troup	43,879	19,186	10,650
Upson	25,061	11,065	6,168
Walton	20,779	7,666	1,257
Ware	27,929	10,507	1,918
Whitfield	26,105	10,616	7,801
31 Counties	1,502,581	614,414	172,275
All Others	1,621,112	581,291	94,394
Total State	3,123,723	1,225,705	266,769

Beside the 31 industrial counties listed in the foregoing table, there are a number of others that contribute great support to manufacturing enterprise in the form of related industries.

The state maintains a total of 24 local railways and bus lines, employing a thousand persons; nearly 700 warehouse and trucking concerns, employing 7,000 persons; and other transportation operations employing 5,000.



The Savannah plant of the Southern States Iron Roofing Co. manufacturers metal roofing, shingles and naval stores equipment such as turpentine and rosin drums.

Communication operations, employing 10,000 persons, number 159. Eighty-five gas, electric and other utility concerns employ personnel totaling nearly 8,000.

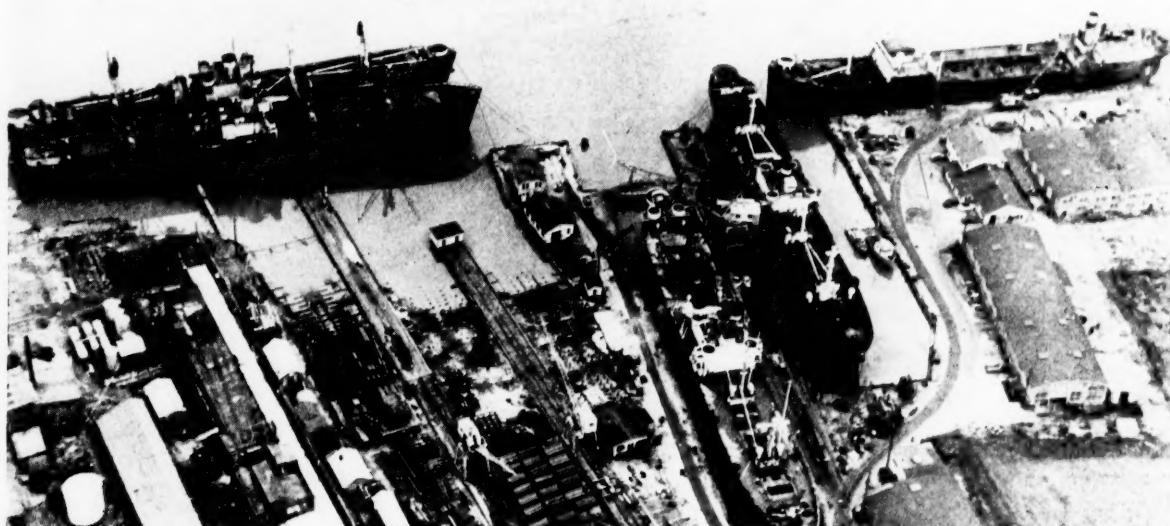
Wholesale trade in the state is represented by 3,300 companies, employing 42,000. Retail establishments, numbering 12,000, give employment to 95,000.

Banks and trust companies number well over 300, and carry on their payrolls nearly 5,000 employees. Other financial institutions, including investment banking, insurance agencies, and real estate dealers number over 2,000, with personnel of 19,000.

Total service industries number 8,000, with 50,000 employees. These establishments include 518 hotels and other lodgings, 2,643 personal service agencies, 513 business services, 47 employment agencies and commercial schools, 820 auto repair shops, 461 miscellaneous repair shops, 239 motion picture houses, 331 amusement centers, 1,352 devoted to medical service, 448 legal offices, and some 900 others, including 338 nonprofit membership groups.



Above is a section showing housing facilities provided for workers by the Port Wentworth Corp., Port Wentworth, Ga.



Above, the ship repair yard of the Savannah Machine & Foundry Co. at Savannah employ 850 persons. The yards repair and make conversions on ships from various parts of the world.

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Beef herds can feed twelve months a year on rich pasture land such as this, making practically unnecessary any supplemental feeding.

AGRICULTURE

For more than two centuries Georgia has been a vast agricultural experiment station. There is hardly a crop or animal of commercial importance known to the western world that has not been tried. Some have thrived, some have not. Some have risen to the rank of minor staples and then disappeared into oblivion. Others have become great and profitable. But the Georgia's farmers hankering to see what he can do with his earth has been insatiable.

Georgia came by her agriculture curiosity naturally. She was founded in 1732 by 21 trustees who hoped that while establishing a colony where financially embarrassed people could get a new start, a new source of wines, drugs, dyes, and herbs might be developed that would break the European monopoly on such products.

Truly, the trustees were idealists. Slavery was forbidden. To prevent a class society from developing, settlers were not allowed to sell, mortgage, or lease the land granted them. Tried and proven staples like rice and tobacco, already glutting the markets of other colonies were discouraged.

The more than 5000 settlers who joined the experiment in the first 20 years were an odd assortment, including English, French, Swiss, Salzburgers, Moravians, Jews, Dutch, Piedmontese, and Scotch-Highlanders. Most of them were townspeople hardly able to tell a hoe from a rake. Nevertheless, they set-to obediently for a while as the trustees bade them, cleared tiny patches of forest, and proceeded to raise mulberry trees for silk worms. The trustees were sure silk production would eventually be the colony's major industry.

Next in importance were the grapes for wine, and

they were planted everywhere. An endless variety of exotic plants was tried also—pot-herbs, sage, leeks, skallions, celeri, liquorice, kale, madder roots, lucerne, raisins, chestnuts, olives, coffee, cocoanuts, etc. Even oranges were set-out near Savannah, as were apples, figs, plums, asparagus, and even West Indian cotton, both annual and perennial.

To aid this search for exotic crops the trustees established a garden of their own, thereby creating what has often been called the first agricultural experiment station in America. Botanists were also dispatched to the corners of the earth to bring in seeds and plants.

An infant colony, however, was no place for such experiments. Labor and capital were always short, tools practically non-existent, and the colonists took a long time to learn how to pick out good land and combat unfamiliar diseases and insects. Only the German Salzburgers in the little village of Ebenezer succeeded in producing small quantities of silk profitably. Grapes and the other plants dear to the trustees failed to become commercially valuable. And since there was for long no wharf for shipping and no slaves for cheap labor even lumber and cattle raising made little progress.

The demands for reforms rose quickly. The Georgia farmer demanded freedom to express his own genius, to do as he pleased with his land, to raise what he liked, and to expand. By 1749, the colonists had forced the trustees to admit slavery. By 1750, all restrictions on land holding were lifted. And in 1752 the trustees gave the colony back to the king.

The effect was electrifying. Three new developments . . . the admission of slavery, unrestricted land,

and the adoption of tried and proven staples . . . revolutionized Georgia agriculture. In the remaining twenty-odd years before the American Revolution the population of Georgia increased from 2,381 to 33,000. The labor system of indentured servants was abolished. The red man was driven back and the settled area of the colony was tripled. The plantation system was established. Surely Georgia began a new era.

With slaves pouring into the colony (there were 15,000 by 1772) and the building of a wharf at Savannah, plus sawmills, lumbering and naval stores quickly became profitable. Livestock also came into its own with herds of cattle numbering 1,000 head, and hogs, shoats, horses and barrels of beef and pork being exported.

Yet, it was rice that became the leading staple, with indigo second, and tobacco, corn and peas following close behind. By 1775, the colony was exporting annually 25,000 barrels of rice and 9,000 pounds of indigo.

The royal period also saw the creation of the three main types of agricultural units that were to dominate Georgia for many decades. First there were the capitalistic plantations that appeared in the tide-water area, answering the world demand for cheap raw materials, stocked with a large force of permanent slave labor, operating in routine under industrial like supervision, and devoted primarily to production for a commercial market. Second, the small farm also developed, worked by a few slaves or hired help, managed by a working owner, and concerned only partly with commercial crops. And third, there was the frontier farm centered primarily west of the pine barrens, worked by a family without slaves, hunting and trading between crops, and designed only for the production of family necessities.

The American Revolution, which brought this exciting royal period to a close, knocked the Georgia

farmer flat on his back . . . financially as well as physically. But once the war was out of the way, the new state began organizing for a new era.

The existence of uncounted acres of practically free land brought people into the state so fast that the population nearly doubled every decade. In 1800, 162,686 people were counted.

But it was Eli Whitney's invention of the cotton gin in Savannah in 1793 that ushered the state into the cotton kingdom. In 1791, a measly 1,000 bales of cotton had been produced. But by 1800, cotton had replaced rice as the leading crop. By 1826, annual production was up to 150,000 bales and in 1859, the final year of the golden age, more than 700,000 bales were produced.

Surely and steadily cotton spread everywhere in this era. By 1840, it had pushed the red man entirely out of the state. The Piedmont Plateau and the mountain region became settled. On the red lands around Albany in Southwest Georgia a little "Egypt" of cotton plantations developed. On the sea-coast the long staple Sea Island cotton challenged rice for supremacy as the leading crop.

Yet, the age of the cotton kingdom was not an age of all cotton. The national economic depression of the 1830's and 1840's spawned another era of reform and experimentation that was not to be stopped until the Civil War. It started, possibly, in Hancock County where the amazing planter, David Dickson, was experimenting with deep plowing, shallow cultivation, and the use of manures—comparatively new techniques in that day. It was in 1848 that Dickson became the first man in the South to try guano on growing crops and the first in the world to use it on cotton. His wonderful results, evident in rich profits, so startled the South that the craze for commercial fertilizers was begun.

Yet Dickson was not the only experimenter. Rich-



Workers here are gathering the peanut crop, now worth \$70 million a year in Georgia, and second only to cotton in cash value.

ard Peters, Jarvis Van Buren, P. J. Berckmans and C. W. Howard are but symbols of the many men who were developing new breeds of livestock and grasses suited to Georgia, working with peaches, grapes, apples, watermelons, hay vegetables and any number of other products that in the years to come were to be perfected and pushed into the realm of profitable yields. In the great Wiregrass region of the Coastal Plains herds of cattle roamed as large as 5,000 head, and lumbering was getting a new foothold.

Yet, it was in the desperate years after the Civil War that Georgia's capacity for experimentation produced its best results. With her cotton kingdom largely destroyed she began to dream of diversification. It was hard going. A full 75 per cent of the State's agricultural wealth was wiped out by the war. A vicious circle of tenancy, one-crop system, and high credit held the state in its grip for many years. Texas fever, which remained a mysterious disease until the 1890's prevented all efforts to develop purebred cattle. Untrained negro labor and the lack of dairy products in the dietary habits of the people caused dairies to closeup almost as fast as they opened. The rise of sheep herding in Australia, Canada and the American West destroyed the state's great herds of sheep. Unfamiliar insects or frosts destroyed attempts at orchards. And then, as a final insult, in 1915 the deadly and dreaded boll weevil crawled into the state from Alabama.

In spite of these set-backs, however, by the opening of the twentieth century the long dreamed of diversification had begun and to this day it has not stopped.

Within the first quarter of the new century peaches and pecans emerged as the leading staples of the

region below Macon, while apples took hold in the old stamping ground of Jarvis Van Buren in North Georgia. As tick fever was cleared from the state herds, purebred cattle began to appear, first in the Coastal Plains, later in the Piedmont. By 1910 lumbering and naval stores, especially in the pine areas of South Georgia, had become major industries. As cities like Atlanta, Macon, Savannah and Augusta increased in population dairies and truck gardens to serve them sprang up—and this time they remained to flourish.

World War I only served to stimulate the movement for experimentation and diversification still further. In South Georgia around Tifton a plant industry was born that in a score of years was to make Georgia the greatest grower of tomato plants in the world, not to mention cabbage, beet and other plants. At the same time, sparked by experiments at the university at Athens, a genuine poultry industry began to grow, that was soon to make Georgia a leading hatchery state. As methods of fighting the boll weevil were perfected and new varieties of cotton appeared, cotton made a stout come-back. Tobacco, also, began once again to appear in the list of the state's important crops, while peanuts, first introduced after the Civil War, were boomed.

However true the charge was once, that Georgia was a one-crop state, it certainly was no longer true by the fourth decade of the twentieth century. Even in 1940, cash farm income figures, exclusive of government payments, totaled \$142,696,000 in Georgia, and of this total, \$109,778,000 represented the income from crops alone. These crops included cotton lint and seed, sugar cane, tobacco, apples, peanuts, corn, wheat, oats, peaches, sweet potatoes, barley, cowpeas, hay, lespedeza, pears, pecans, rye, soybeans, strawberries, tung nuts, Irish potatoes and velvet beans.

While approximately 48 per cent of this figure represented the income from the cotton crop, there was still no doubt as to the multi-crop production position of the state at that time. Nor has this growth and diversification diminished during the interval between that time and the present. In 1946, total market receipts reached a pinnacle of \$408,106,000 of which \$288,345,000 was realized from crops, a figure more than twice that attained just six years earlier. Cotton receipts were again predominant, but to a lesser degree, being responsible for but 32 per cent of the total, or suffering an 18 points decline, relatively speaking, over the six-year period.

This is significant in view of the fact that in spite of a decline in acreage and production, actual cash receipts for the crop were nearly double those of 1940. The obvious conclusion to be drawn from this is that there has been a large and healthy growth in the majority of the commodities produced in the state, that this growth is still going on and shows indications of continuing until a truly balanced economy is attained.

This assumption is borne out by the production figures for the two years, which show that there has been a substantial quantitative increase in the production of the great majority of these commodities, thereby obviating a possible assumption that in-



Gathering the choice leaves on a tobacco plantation near Valdosta.

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creased receipts were due primarily to higher prices. Georgia produced approximately 2 million bushels more of peaches in 1946 than in 1940; 34 million pounds more of tobacco; twice as many bushels of oats; almost twice as much wheat; and 176,695,000 more pounds of peanuts.

While cotton is still the undisputed leader as far as crop value is concerned, accounting for \$90,651,000 of the total cash income from crops in 1946, peanut production is rapidly approaching \$70 million in annual value. Georgia is by far the leading producer of peanuts in the United States, and sees even greater possibilities for progress through the expanding fields of peanut research. The peanut industry increased five-fold during the last war, with Georgia containing a little more than 40 per cent of the total national peanut acreage. It is estimated that Georgia farmers receive the major portion of the \$200,000,000 that the peanut industry pays annually to Southern farmers.

Peanuts were first grown commercially when the boll weevil forced many farmers to substitute other cash crops for cotton. Their cultivation is most extensive in Southwest Georgia, where the Spanish and runner varieties are best adapted to the soil and climate. Their vines are valued as fodder, and their nuts are utilized for numerous things including peanut butter, candy and oil. After the crops are harvested, farmers allow their hogs to root for the remaining nuts. Because peanut-fed hogs are prized for the flavor of their hams, farmers often grow crops especially for hog feed.

Of great value to Georgia, and to the industry itself, is the location of many shelling plants, processing plants and peanut oil mills throughout the state. At present there are approximately 60 shelling installations, 29 processing plants and 23 oil mills in the state. About 85 per cent of the shelling plants and oil mills are located in Southwest Georgia, close to the producing areas. A number of the processing plants are located in the larger cities where adequate transportation facilities, and sufficient labor supply is assured.

Increasing demand and constant development of new products promise exceptional opportunities for processors. The National Peanut Council, with headquarters in Atlanta, has been the leader in long range planning for the industry as a whole. To mention but a few of its many projects, it is interested in increasing production, lowering the cost of production, improving quality, building up new markets for the nut and its many products and in publicizing peanuts, their many uses and their nutritive value.

Another crop that has made great strides in recent years is tobacco. Production in 1940 was 76,420,000 pounds valued at \$12,437,000. In 1946, 110,537,000 pounds worth close to \$50 million were produced in 45 South Georgia counties. This was the largest amount ever paid for a Georgia tobacco crop, and placed it in a position of prominence as a leading cash crop along with cotton and peanuts. Important in themselves, these figures take on added significance in view of the fact that Georgia's flue-cured tobacco industry is less than thirty years old.

The first of the tobacco markets was established in



From orchards like this one in DeKalb County came more than six million bushels of peaches in 1946, two million more than in 1940.

Douglas in 1918. Today, the crop is auctioned off in 69 warehouses on 18 separate loose-leaf markets. These markets, for the most part, are located in the county seats scattered throughout South Georgia, and equally divided between the Southwest and Southeast section of the state, with Statesboro—several miles below Macon—being the northernmost.

In tobacco production, emphasis is placed on high quality and a high yield per acre. In 1928, acreage passed the 100,000 mark for the first time. This figure has been exceeded only three times since then, in 1930, 1939 and 1946, and preliminary figures for 1947 indicate another record crop.

While cotton, peanuts and tobacco constitute the most important cash crops in the state and contribute the most to farm income, the overall crop picture is very encouraging. In addition to the many staples mentioned above, watermelons, pecans and sugar cane are also profitably produced.

The vicinity of Cairo in Southwestern Georgia is very rich in the production of sugar cane, and Cairo itself is one of the largest producing and shipping points for pure sugar cane syrup in America. The production of tung oil also centers about Cairo, where the soil and climatic conditions are similar to those of the native home of the



Herefords grazing on ladino clover on a farm near Sparta.

tung nut, a section of China. The first trees in the state were planted in 1908. The fact that the nut is poisonous and thereby pest proof helps maintain a low production cost. Because tung oil has over a hundred uses, commercially speaking, it is one of the most important orchard products of the state. In 1946 Georgia produced 950 tons of tung nuts which were valued at \$144,000. The chief use of the oil is in the manufacture of lacquers, paints and varnishes. Paper-shell pecans were introduced about 1905, and Georgia soon took the lead among the states in their cultivation. In 1946, 16 million pounds valued at \$5,598,000 were produced, a volume and value exceeded by only one state in the nation.

To facilitate the distribution and marketing of its products the state maintains 11 markets throughout the farming areas, and these markets did a gross business of nearly \$36,000,000 in 1947. Related to this is a

growing canning industry, operating profitably near the producing areas.

While many crops have made outstanding gains in yields per acre in recent years, still greater gains in the grain crops are necessary if Georgia is to become the leader in the highly competitive livestock and dairy industries.

Progress is being made toward this end. In fact, the growth of the livestock industry in the state has been the most significant development and phenomenal change in its agriculture in the last ten or twelve years. Net farm income for 1940 may be broken down in the following manner:

Net livestock income	23 per cent
Sale of cotton and cotton seed	39.2 per cent
All other crops	37.8 per cent

Total 100 per cent

A similar breakdown for 1946 reveals:

Net livestock income	39 per cent
Sale of cotton and cotton seed	29.5 per cent
All other crops	31.5 per cent

Total 100 per cent

Certainly the comparison shows that a lot of progress has been made toward the attainment of a prominent position among livestock producing states. In spite of this progress, Georgians are well aware of the fact that large scale livestock production will not be profitable for them until enough feed can be produced within the state to cover its needs.

Improved permanent pastures are being expanded; more oats, wheat, rye, sweet potatoes, barley and grain sorghums are being produced, and less corn (corn will not meet the grain (carbohydrate) need); cotton is being utilized as a feed crop as well as a cash crop through the use of cotton seed meal as a feed. All of these projects, and others, will help to overcome the scarcity of feedstuffs, and when an equilibrium is reached between production and consumption



Harvesting the sugar cane in South Georgia. Cairo is one of the largest producing and shipping points for pure sugar cane syrup in America.

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Top—Georgia state farmers market at Atlanta, one of 11 public markets in the state, had gross sales of over \$28 million in 1947.

Bottom—Canning plant of Pamona Products Company located at Griffin and specializing in the canning of pimento peppers.

of these essentials, the progress which has already been made in this field will be continued and accelerated. There is already an abundance of market facilities. All four of the national packers have established packing houses in the state, and there are many independent packers in operation. Livestock auctions are held weekly at more than sixty places, and every farm in the state is within a reasonable distance of a market.

Georgia now produces more cattle and has more meat-packing plants than any other Southeastern state.

Correlatively is the emphasis being placed on dairy products. In 1946, a total of 1,157,000 head of cattle were listed, and of this total 403,000 cows and heifers, valued at \$29,419,000 were set aside for the production of milk and dairy products. Evidence that more attention is being devoted to this part of the livestock picture may be found by examining 1940 figures. These show that 386,000 cows and heifers worth \$14,282,000, out of a total of 1,019,000 head of cattle were set aside for these purposes. Every effort is being made to weed out scrub cattle, and to promote the finest possible and most productive strain of cows.

The poultry business has also made its contribution to Georgia's progress. During the war, Georgia became the nation's number two broiler producer, doing

a \$64,800,000 business in 1944. Although the volume of business has naturally decreased and leveled off since that time, it is still a very important part of the over-all agricultural set-up. It has created many new jobs, and is responsible for many additional sources of income. There are eight dressing stations throughout the state; 200 cars of commercially mixed poultry feed are required each month, and the large volume of production requires the erection of more plants for dressing, chilling and packing and the freezing facilities of the largest cities in the state.

It is possible that livestock and foodstuffs will displace cotton and become the major cash crops of the future. The obstacles to the development of a balanced farm economy are formidable, but various agencies in the field of farm education are seeking to overcome them. The Georgia Department of Agriculture, established in 1874 as the first state department of agriculture in the Union, aids farmers in marketing their produce and sends out market bulletins. Its general educational work is augmented by that of the extension service of the University of Georgia, the agricultural experiment stations, and federal and county agencies. Because almost half of the state's population is engaged in agriculture, the self-sustaining farm is vitally essential, and the trends toward a more balanced farm economy and more varied foodstuff production is a healthy one.



The Reynolds Bros. Lumber Co. at Albany is one of many such important installations which base their operations upon Georgia's greatest natural resource—the forests. This company owns 36,000 acres of forest land.



Above—Bleeding trees for the materials for naval stores. The state's production, annually, is greater than that of any other state in the nation. The annual value of naval stores in Georgia is \$23,000,000.

FOREST PRODUCTS

In no phase of natural wealth is Georgia more richly endowed than in its magnificent forests.

With 25 million acres of timber, Georgia's woodlands cover more than 60 per cent of the state's total acreage and constitute its greatest natural resource—a resource potentially greater than that of any other state.

Already, these forests are the basis for many highly important and profitable industries. But the future aspects are even more important. These forests, with their vast potential wealth, can lead Georgia's pulp and paper industry to the top among world leaders.

Annually, these woodlands produce more than 60 per cent of the domestic supply of naval stores; approximately 5 per cent of the national lumber cut; tremendous quantities of cross ties, poles, fuelwood, pulpwood and other products which furnish the landowners more than \$100 million income—an amount approximately equal to the value of the cotton or livestock industry in the state.

During the last ten years, full recognition of the importance of these timberlands has been achieved and the state has made great progress in the practice of forestry. Timber is now looked upon as a crop instead of a mine and industries such as the naval stores group have made notable strides forward in forestry management. Many commercial and private owners are practicing sound forestry on their holdings and organizations, such as the Seaboard Air Line Railroad, through forestry programs, are doing much to

cultivate and perpetuate this source of such great wealth.

A summary of the state's forestry statistics presents an interesting picture. The total net volume of sawtimber is 40 billion board feet, of which 30 billion board feet are pine and 10 billion, hardwood and cypress. The total net volume of cordwood is 86 million cords, 40 million of which are pine, 28 million pulping hardwoods and 18 million non-pulping hardwoods and cypress. The total net growing stock is 165 million cords, 100 million of which are pine and 65 million, hardwood and cypress. On the average acre of forest land the total net volume of sawtimber is 1,606 board feet of which 1,224 are pine and 382 hardwood and cypress. On the average acre of forest land the total net cordwood volume is 3.4 cords, 1.6 cords of which are pine and 1.8 hardwood and cypress. Also, on the average acre of forest land the total net growing stock is 6.7 cords, 4.1 cords of which are pine, and 2.6 hardwood and cypress.

From products based on its forests, Georgia's annual income already stands at an impressive figure and even with this it is estimated that the state's forest lands are producing less than one half of their capacity.

In 1946, from lumber and timber basic products produced in logging camps and the various mills, value of production was \$141.5 million. In the same year, furniture and finished lumber products, fashioned for the most part from this Georgia yield, had a production value of \$59.9 million. In still another industry based upon Georgia forest—pulp, paper and allied products—product value amounted to \$67.7 million. Aside from this is the naval stores industry with its production value of more than \$23 million annually.

Georgia's naval stores industry began about 1875 and since that date has developed into one of the state's leading enterprises, not only from a dollar standpoint but from the fact that the nation is de-



On a south Georgia farm, a farmer uses a power saw to cut pulp wood. Private land-owners provide an important source of raw material for wood consuming mills.

pendent upon Georgia for more than half its supply of naval stores.

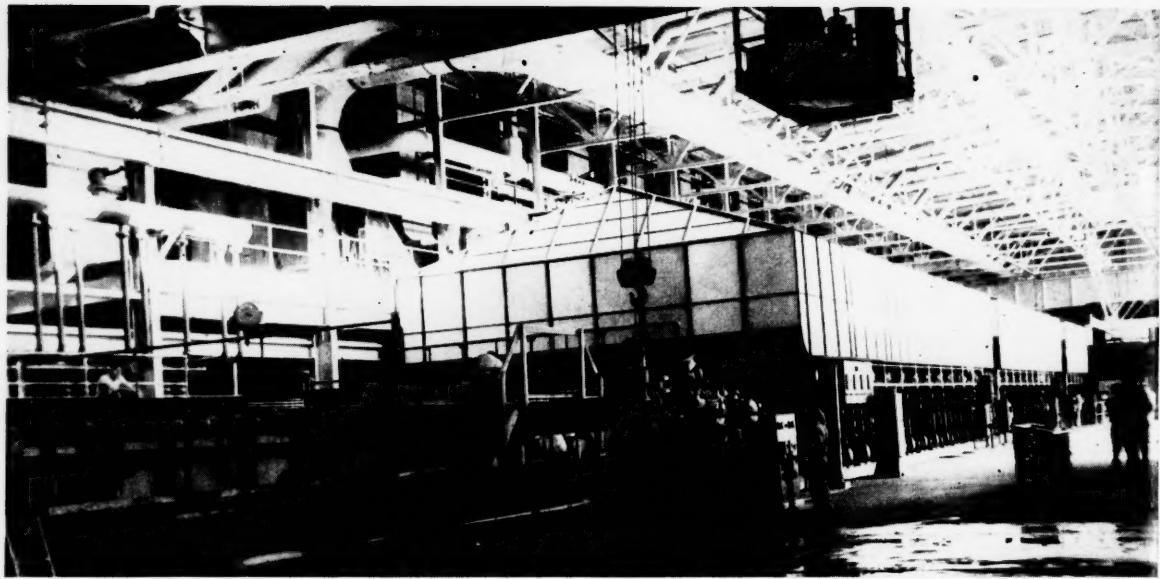
The naval stores industry employs annually on the average about 20,000 to 25,000 persons who work approximately 40 million pine faces per year. There are some 10,000 producers of naval stores in the state, ranging in size of operation from 500 to 1,000,000 trees each.

The small farmer-type producers, who work about 2,500 trees on an average, make up about 80 per cent of the producers and account for about 50 per cent of the trees worked. These farmer-type operators work their own timber along with other farm crops and from the turpentine and rosin produced derive a year-round income.

More than 300 products are made from rosin, tur-



Above is the Atlanta plant of the Southern Wood Preserving Co. This plant treats poles, ties, and other wood products.



View from wet end of one of the five massive paper machines on the production line at Savannah plant of Union Bag & Paper Corp. This industrial giant, more than a city block long, produces 150 tons of 20 ft.-wide Kraft paper each day.

pentine, and pine oil, being used in such widely separated fields as adhesives, metal finishing, paint and varnish, synthetic rubber, insecticides and disinfectants, inks and dyes, textiles, plastics, foundries, asphalt products and paper, and many others.

This abundance of rosin is particularly conducive to the even further development of the paper industry since Georgia is practically the sole source of this product for that industry.

During the early years and up until 1940, each operator in the naval stores industry, who was working as many as 60 tree faces, had his own fire-still for converting the raw gum into rosin and spirits of turpentine. Today, however, about 80 per cent is processed in modern central plants which, according

to experts, gives a more uniform product plus a more economical operation. Georgia, today, has 23 central gum buying plants which range in capital investment from \$20,000 to \$250,000.

After processing of the raw gum from pine trees, the two products, rosin and turpentine are packaged for marketing, practically all of which is accomplished at the Savannah Cotton and Naval Stores Exchange, the official naval stores market for the industry.

For its rapidly building furniture manufacturing industry, Georgia can also give credit to its forest resources which offer such an impressive basis for even further expansion of this enterprise.

In 1946, there were 107 establishments in the state engaged in the manufacture of furniture and finished lumber products. More than 10,000 wage earners were employed with annual wages totaling \$13.8 million. In that year the value of the manufactured products was \$59.9 million. The majority portion of the furniture manufactured is of an inexpensive to moderately priced grade with some upholstered and unfinished articles.

With 163 species of trees in Georgia forest, manufacturers have an ample supply of materials from which to choose. Gums and oaks, however, are used more than any other species of timber for furniture manufacturing. Gums include the red, the tupelo and the black. The oaks include the red and white. Most of the plain furniture is made from pine, the most plentiful of all woods in Georgia.

Pine is available in ample quantities throughout the state. The better grades of oak are found in the upper Piedmont and mountain sections. Red, tupelo and black gum are found in the greatest quantities along the rivers and creeks of middle and south Georgia. The other species used are scattered throughout the state in limited quantities in any given locality.



Above—A typical pulp wood operation in a Georgia Forest.

With such splendid resources to offer, the state is looking to an even further expansion of furniture manufacturing, with special emphasis on the production of high grade furniture. Such an addition will serve to increase the value of an already lucrative phase of Georgia industry.

But it is in the manufacture of pulp and paper, that Georgia, with its tremendous resources, offers, perhaps, the greatest economic opportunity in the production of forestry products. Already well established in the South and in Georgia, the industry's progress in recent years has been so marked that this region is leading the nation in pulp and paper development.

In 1946, the value of Georgia's production of pulp, paper and allied products was \$67.7 million and more than 50 establishments were engaged in this work.

Economists have predicted that Georgia mills will soon be the South's top consumers of pulp wood. Already the mills in Georgia are among the largest users in the South.

For the most part, Georgia's swift development in the pulp and paper field has occurred since 1930. In 1932, Dr. Charles H. Herty of Savannah interested a number of sources in the possibility of manufacturing newsprint from Southern pine. As a result of his research, the Southland Paper Mills were built in 1940 at Lufkin, Tex., becoming the South's first large-scale newsprint producer. As an outgrowth of this endeavor, a \$30,000,000 plant for the manufacture of newsprint is presently under construction at Chilbersburg, Ala. This installation will depend upon the forest of Georgia for much of its raw material.

Georgia offers many advantages that indicate still further expansion of this industry. For one thing, mills are newer and larger than in many other sections of the nation. Further, these mills can obtain deliveries of pulpwood on a year-round basis, eliminating the necessity for stocking large inventories.

In 1947, according to the State Agriculture and Industrial Development Board, Georgia had more than 7,200 workers in this industry with the number increasing as more plants began operation in Georgia. The influx of new establishments has given Georgia a wide diversity of products embracing paper of all types, paper board, cardboard, cartons, boxes and bags.

And by no means the least advantage to Georgia of the growth of the pulp and paper industry is the huge amount expended by the various companies for timber purchases from private landowners. Also, many of the companies, owning their own timber tracts, use trained, technical foresters both in the management of their own holdings and as advisory agents to local land owners. This acts as a profitable safeguard, insuring the perpetuation of the state's invaluable timber stands.

But even with the tremendous expansion which has already taken place in the industry, a forestry survey made for the state development board, disclosed that Georgia has a potential for 12 additional paper and paper board mills with a total of more than 2,000 more employees. There is room for 17 additional plants to produce paperboard containers and boxes



Above view of the National Show Case Co. at Columbus shows a section of the upfitting department. The plant is reported to be the first of its type in the country.

and for more plants to manufacture machinery for paper and pulp mills and paper products.

Frequently the South has been accused of being able to entice industries because of lower wage costs. This, has been refuted in regard to the pulp and paper industry. Since 1939, according to James L. Ritchie, assistant executive secretary of the American Paper and Pulp Association, the wage increase for workers in the pulp and paper industry has been 69 percent, contrasted with only 45 percent for the entire domestic industry.

Surveying the state's forestry resources, the State Engineering Experiment Station of the Georgia School of Technology, through industrial economist Joseph B. Hosmer, issued this statement: "it is reasonable to infer that Georgia affords the most certain supply of pulpwood for paper manufacturers in the United States. Opportunities for the manufacture of more paper may be found in every county in the state."



At Thompson, Ga., Knox Industries, manufactures prefabricated houses which are being shipped to all parts of the nation.



Typical fleet engaged in commercial fishing out of Brunswick.

COMMERCIAL FISHING

One of Georgia's old and thriving industries is found along her coastline, from Savannah to St. Mary's. This business, which is both picturesque and profitable, is that of gathering seafoods and shipping them fresh, frozen or processed to inland markets. It is, for the most part, an industry in which prices vary from day to day and from season to season as the "catch" increases or decreases, and as the quality of the seafood differs. Because of these variations in activity and quality, the number of persons employed in the industry is of a fluid nature also.

In spite of these irregularities, the seafood industry is considered one of the most important on the Georgia coast, and the payrolls of all the operators run into sizable figures every year.

According to the supervisor of the coastal area for the Fish and Game Commission, at Brunswick, there are some 27 large producers and about 100 inde-

Capping cans filled with crab meat in a cannery at Brunswick.



pendent operators in this business along the Georgia coast at present. Those firms which own and operate from 10 to 15 or more fishing boats are considered large firms, while the independent operators usually maintain 1 or 2 boats. The majority of the firms handle several seafoods, with shrimp, crabs and oysters being the most important. There are about 30 oyster shucking plants in operation in this area. Approximately 90 per cent of the oyster beds are leased and the remaining 10 per cent are privately owned.

Figures released by the office of the Fish and Game Commission show that the complete output of salt water seafood last year amounted to 15 to 20 million pounds of shrimp, 20,000 gallons of oysters and something like 350,000 pounds of crab. The estimated total net sales of these products was in the neighborhood of four and one-half million dollars. Prices of all seafoods naturally vary, with the demand of the public and the quality of the product. Shrimp has sold for as much as \$45 per 100 pounds in recent years. Estimated retail sales on seafoods in Georgia were in the neighborhood of \$10,300,000.

The plan of operation in the seafoods industry is this: specially built shrimp boats go out in the morning. They are equipped with storage pits and carry a supply of ice. Otter trawls (shrimp nets to most of us) are fashioned so that they can be towed behind the boats by cables. The mouth of the net is open and the bottom drags the floor of the inlet or ocean. At intervals the nets are hauled in, unloaded and the contents packed down in ice. Then this process is repeated. Usually the boats go out in the early morning and return in mid-afternoon. However, in cool weather the boats sometimes remain out overnight, or even for several days.

Negro workers know when to expect the fishing boats, and every afternoon, in good weather, the docks are lined with waiting workers. The shrimp is scooped into wire baskets, the ice washed out, the buckets weighed. Then the catch is rushed to the picking or packing rooms, depending on the disposition. The same system applies to the handling of crab. If the seafood is to be sent fresh, it is packed in ice and loaded on trucks or planes. For shipment by truck, wooden boxes, carrying 100 pounds of shrimp are used.

The best months of the year for shrimp fishing are September, October, November and December, with some being caught in January. Shrimp spawn in the ocean, move into the inlets or sounds when in the microscopic stage, develop into the small and most delectable shrimp, then move back out into the ocean. They do not like cold water and migrate to warmer waters as soon as the cold moves in.

Since seafoods are becoming increasingly popular with the American public, especially in their fresh state, every agency in the business is cooperating to cut distance and time of delivery in order that this increased demand may be met promptly. Fishermen bring their cargoes in to waiting workers who speedily pack and ice the seafood and load the trucks; buyers weigh it in, and then it is distributed by truck and plane to the many inland markets.

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and more important and profitable. Local airlines are expanding their programs, and developing their equipment rapidly so that they will soon be prepared to handle several thousand pounds of seafoods daily. A special shipping box has been perfected that requires no ice (thereby eliminating the problem of ice-leakage into the cargo compartment), and yet guarantees that the product will retain its sea freshness. It will soon be possible to give overnight service to such important markets as Chicago, Detroit, New York and Miami.

In spite of the large demand for fresh products, there are plants still processing crab meat and shrimp in large quantities. The method of processing is basically the same in all plants, although there have been some refinements of the various steps. Shrimp are peeled and then blanched (evenly cooked in steaming vats of water), and then put through a grader where they are sorted according to size, either: small, medium, large, extra large or gumbo. From the grader, they go to the canning table where they are packed in cans with salt water or salt tablets. This maintains sea freshness. Then the cans go to a retort where they are processed according to government specifications. Later they are dipped into the cooling vats, labeled and packed.

It has been the policy of the state to close the sounds along the coast for a time each year in order to give the seafood sufficient time to maintain an increase. However, at the beginning of this year the commission deemed it advisable to close the sounds on a year round basis, and to maintain such a closing until it is considered wise to return to the periodic closing, or until the danger of depletion is passed.

Although various operators voiced different opinions on the closing of the sounds, most of them expressed a willingness to cooperate to the fullest with the Fish and Game Department in this effort not to delete the supply of seafood. Most of the operators feel that, although their businesses are suffering, for the time being, the idea will prove profitable to everyone in the industry in the long run.

The crab industry is flourishing to the extent of 350,000 pounds annually. Some crabs are sent to the inland markets in the fresh state, but much of it is processed. A typical crab company handles both crab and shrimp, and operates a number of boats, a processing plant and a dehydrating plant. About 250 workers, pickers and laborers (exclusive of fishermen) are employed in a plant of this size. All workers in the processing room are required to have health cards, and all food is processed and packed according to government regulations and specifications.

An important by-product of the dehydrating plant are the shrimp heads and waste parts of the crab, which are converted into a product highly recommended for poultry feed. Formerly all dehydrated by-products were used as fertilizer, but it has been discovered that the vitamin content of this by-product is high, so it has been utilized recently by poultry dealers. Many seafood concerns operate plants of one kind or another for the pulverizing of oyster shells, since this has often been used by poultry breeders for the lime and grit content.

Almost the entire output of 20,000 gallons of oysters was marketed in the fresh state last year. The oyster beds are cultivated during the summer months. Beds are replenished in two ways: by collecting wild clusters and sowing them in the beds, and by replanting the shells from which oysters have been taken. The spawn fastens on these shells and new oysters develop. The oyster season begins around October 1 and ends about April 30. The oysters are collected by hand or with tongs, then selected and culled, the smaller ones being returned to the beds for seed, the larger ones hauled to the plants where they are shucked and sent to market.

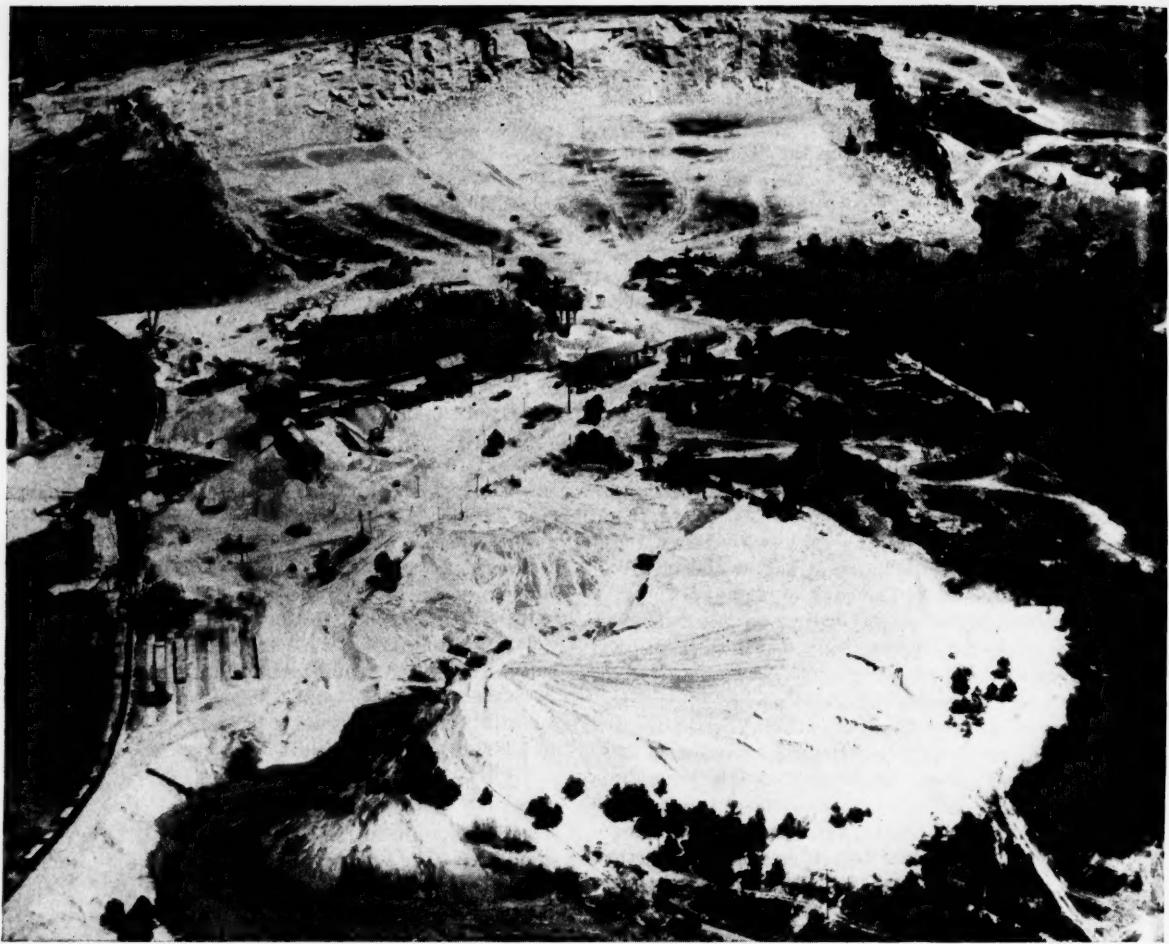
One unique seafood industry is located on the Isle of Hope, in an inlet, out from Savannah. Here we find a terrapin farm. This diamond-backed terrapin farm was started in 1890 by the father of the present owner. He was a motorman on the streetcar line from Savannah to the Isle of Hope. He became fascinated with the Isle and looked about for some business to operate on the inlet. Finally he, and a friend, started a terrapin farm. This partnership continued for some years. In 1904 the son was taken into partnership with his father, and he is, at this time, the sole owner and operator. The "farm" is a large pen built so that the water from the inlet flows in and out of it. It is fenced tightly and deeply in order that the smallest terrapin cannot escape. The stock consists of 3,200 of these diamond-back terrapin.

In winter wild terrapin are hunted and brought in to the farm to restock and rebuild the herd. Terrapin hibernate in the mud in winter, but they leave airholes which bubble, and by which the hunter can spot his quarry.

When an order is received for live terrapin, the Negro helper who has been in the company's employ for many years, dons his hip boots, wades in and selects the terrapin according to the desired size. They are packed for shipment in Spanish moss and sacks. On the New York market they sell for \$3.50 to \$7.00, depending on size.

A small canning plant is maintained where the terrapin stew meat is processed. From this stew meat chefs in "big name" eating establishments in the East, primarily, concoct the famous diamond back terrapin soup, strictly a gourmet's item. It takes the meat from two 9-year-old terrapins to make a pint of the clear meat. The price of the pint can is one dollar, or \$22.00 per dozen, and it requires five pints of the stew meat plus all sorts of high-priced additions, including a pound of butter and 15 eggs, a sizable spot of sherry wine, plus a few ingredients not named, to make enough for only ten people!

Workers throughout the industry are paid by piece-work, for the most part. Prices vary according to individual agreements. The captain of a fishing boat, for instance, agrees on a price with the owner of the boat. He determines the amount he will retain for himself and the amount to be divided among the crew. A high degree of skill is found throughout this industry, which is a good example of a small enterprise that has taken full advantage of the demand for its products; one that is flourishing and providing a satisfactory way of life for those connected with it.



Among the leading producers for Georgia's mineral industry is the Consolidated Quarries plant in De Kalb County. Georgia is famous for quality marble and granite.

MINERALS

As the largest state east of the Mississippi River, Georgia, with rocks ranging in age from the most ancient to the youngest and extending from the Appalachian Mountains to the Atlantic Ocean, is endowed with mineral resources in unusual variety and in many instances, in almost unlimited quantity.

In Georgia, however, as in many other Southern states, these mineral resources have not been fully explored. In spite of this, a wide variety of minerals has been produced for many years, and at present upwards of 40 commercial minerals, mostly non-metallics, either are being produced or offer commercial possibilities in the near future.

In 1910, the value of Georgia's mineral production was \$6 million dollars. By 1946, this had increased to \$30 million. In large measure, this increase was brought about by the unusual variety of minerals which Georgia could supply.

On the resources map at the beginning of this sec-

tion are indicated those minerals which are now being produced or which offer promise of commercial production in the future. Other deposits are known to exist in several other counties, and will possibly be found to justify commercial production after further examination as to quality and quantity.

The most important mineral produced in Georgia today is white clay or kaolin. Approximately 80 per cent of the white clay mined and used in this country comes from three or four counties in east central Georgia. About 60 per cent of this production is used as filler and coating clay for white paper, and the remainder goes into the manufacture of pottery, firebrick and other products.

In 1946, Georgia produced 1,641,000 tons of clays of all types, slightly less than Missouri's total production. However, the value of Georgia's clay production in 1946 was \$10.2 million, considerably more than that of any other Southern state.

With kaolin being the main component of these clays, the state is presently building up an impressive ceramics industry. Currently being produced in Georgia are: face brick, common brick, refractory brick, high alumina refractory shapes, pottery china, sewer pipes, building terra cotta and other products. The abundance of kaolin is particularly important to the pulp and paper industry which utilizes this clay in the manufacture of book paper.

Until fairly recent times, Georgia was chiefly a source of ceramic raw materials which were processed elsewhere. Today, the emphasis is on a greater manufacture of this great natural resource within the state.

Georgia ranks first in the production of marble which is internationally known, and which is available in several counties in almost inexhaustible quantities. White, mottled gray and flesh colored varieties of true marble, as well as serpentine or verde antique (green marble) are now produced, and other colors are available. The state's marble quarries are in and near Tate in the northwest part of Georgia. Important as a building material, Georgia marble is also a favorite with leading sculptors.

Georgia ranks second in the production of monumental and building granite with three main varieties being produced: blue, dark gray, and pink monumental granites of the Elberton district; light gray, uniform Stone Mountain granite at Lithonia, Camak and Stockbridge has shown an increase within the past few years. The quality of granite found in the state is recognized as the world's finest. Of the annual revenue from granite, monumental granite accounts for about 40 per cent while stone crushed for building and highway improvement purposes contributes about 60 per cent.

The total production of all stone in Georgia in 1946 was 1,514,710 tons. While this production figure by no means made Georgia a leading producer, the value of its product, nevertheless was \$8.5 million, second highest among the sixteen southern states.

Portland Cement is produced at two plants, namely, at Clinchfield and at Rockmart, while Silica cement is produced in one plant at Cartersville. Ample deposits provide for future expansion of these industries.

The Cartersville district of northwest Georgia has long been famous for its adjacent deposits of barite, manganese, ocher, and brown iron ore. Georgia ranks third among the five Southern states which produce virtually all the nation's supply of barite. At Iron Hill, near Taylorsville, brown iron ore is mined on the largest scale ever attempted in the state, the ore then being shipped to iron smelters in Alabama.

Georgia is one of the leading producers of fullers earth in the United States. The deposits in southwest Georgia are used for bleaching petroleum oils, whereas those of middle Georgia are best suited for clarifying vegetable oils. A new use for fullers earth which has been developed recently is for floorsweep and for similar absorbent purposes.

Limestone of both calcium and magnesian varieties is abundant in northwest Georgia, and of the calcium variety in the Coastal Plain of the state. Both



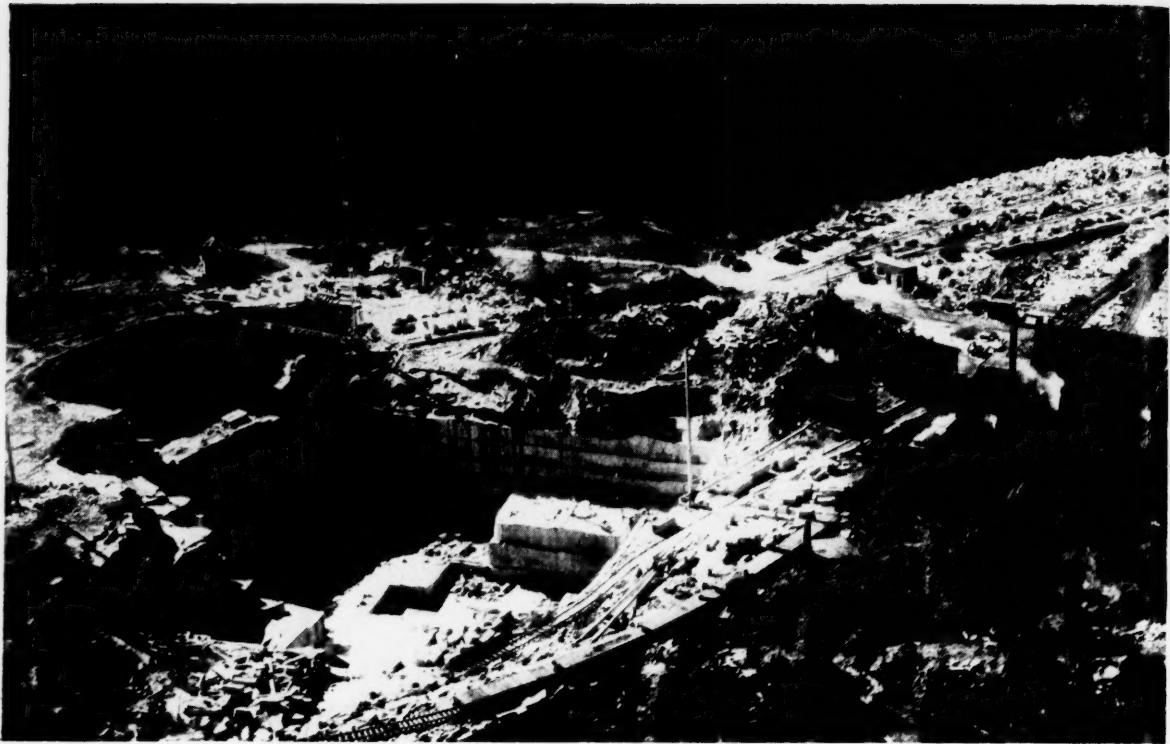
Miners drill for talc which is found in abundance at Fort Mountain and Chatsworth, Georgia. Georgia produces nearly 10 per cent of all talc mined in U. S.

types of limestone are produced in northwest Georgia for use in connection with the manufacture of cement and lime and for use as agricultural lime and aggregate. Several south Georgia producers quarry limestone for agricultural use and for road metal. There is an increasing demand for Georgia limestone in the fertilizer industry.

Gold has been mined in Georgia for more than a century. Before the discovery of this metal in California, the mines of Georgia furnished a large part of the gold production of the United States, and from 1838 until 1861 a United States mint was located at Dahlonega. The total recorded production of gold in Georgia to date has been approximately \$18,000,000. All the gold mines suspended operation for the duration of World War II, but interest is now being shown in reviving this industry in the state and already



Above—Brick being loaded at the Merry Bros. Brick and Tile Co., Augusta. Georgia's wealth of clay is basis for excellent brick industry.



From the Oglesby granite quarry in the Elberton district comes some of the state's finest granite. The product is used for building throughout the United States.



The Georgia Marble Co. at Tate owns quarries with an almost unlimited supply. Georgia marble, preferred by many sculptors, is considered to be among the world's most beautiful.



At Merry Bros. Brick and Tile Co., above, the mechanical handling of raw materials is accomplished by one of the most modern systems in the country.

some half-dozen properties have resumed operation. It is a notable fact that at no point in the gold fields of Georgia has a shaft or any other exploratory opening been made deeper than 500 feet vertically beneath the surface.

Georgia is now a producer of feldspar and the mining of this mineral will give much aid to the ceramics and glass industries. Recently a plant was completed near Monticello in Jasper County.

Prospecting by drilling has established an area of about ten miles in length by one-half mile in width. Several zones in this area are known to contain several hundred thousand tons of high-grade clean spar.

Bauxite, coal, flagstone, gravel, kyanite, mica, peat,

and slate are all produced in relatively minor amounts in Georgia. At Chatsworth, the state can boast of one of the largest talc-producing centers in the world. The state of Vermont is Georgia's chief competitor in this field.

The following minerals have been mined in the past or are present in possible commercial quantities: asbestos, bentonite, chromite, copper, corundum, graphite, halloysite, olivine, purite, sillimanite, tripoli, and vermiculite.

The production of building sand in Georgia for 1947 is estimated at one million tons. Further expansion of production in this field will be of much importance to growth of glass manufacturing in Georgia.



This Kaolin mine is located in the Milledgeville-Macon area which is the center of Georgia's Kaolin industry. The mineral is used extensively in the manufacture of paper.

TRANSPORTATION

An essential part of any industrial or agricultural expansion and development program is an adequate transportation system, one over which raw materials, finished goods and services may flow, unimpeded, to manufacturers, farmers, marketers and consumers. Georgia's well-integrated system has been a vital element in the state's economic development for over one hundred years.

The first settlers of the state found the existing trails and navigable streams adequate for their transport and travel needs as long as their settlements were huddled near the coast. Soon, however, military needs brought about the construction of the first roads, and later, as agriculture developed, the need for better transportation became more acute. Market towns were, for the most part, conveniently located along the rivers, and the waterways served as the main arteries of trade for some time. But as the settlements moved farther inland, need for a better means of land travel grew more pressing. Trails gradually became roads. The state encouraged road building by granting charters to private companies to build turnpikes and operate stage-coach systems, and this development was aided further by the federal government's military and post roads, one of which was constructed in 1811 from Milledgeville westward across the Chattahoochee River and another in 1815 from Athens northward into Tennessee.

Highway construction and improvement progressed slowly but steadily through the years until all important sections and cities were easily accessible to one another. In 1919 the state highway board was created, and in this same year the first concrete highway in Georgia, an experimental five mile strip north of Griffin, was constructed. Later the through traffic to Miami during the Florida boom stimulated interest in improved highways, and soon roads were being paved throughout the state. The gasoline tax was increased, and in 1931 the highway board was spending more than half the state's annual income. Recent road development by the Civilian Conserva-



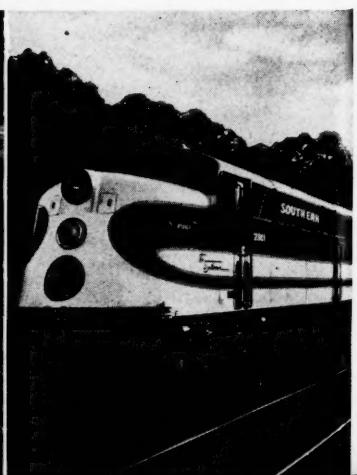
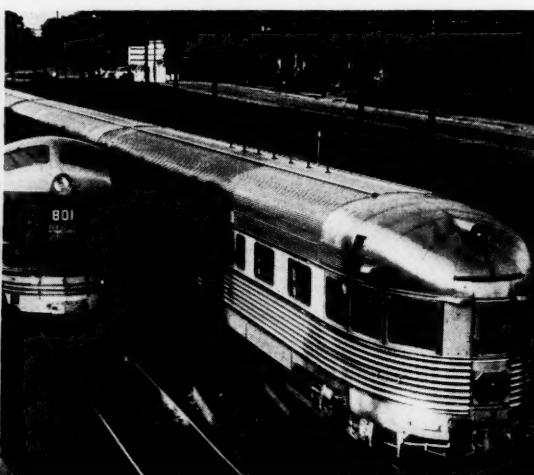
Diesel-powered engines of Atlantic Coast Line Railroad haul thousands of cars of freight from Georgia to the nation's markets.

tion Corps and the farm-to-market road program have done much to expand and improve intra-state highway transportation.

At the end of 1936 nearly four thousand miles of rural roads were either completed or under construction. Of more than 10,740 miles of highways in Georgia (including 20 U. S. highways) 44 per cent were paved.

Today, Georgia has 98,128 miles of roads. Of this total 29,126 miles are surfaced roads, and 7,586 miles of this figure are primary highways, which link the leading cities and manufacturing centers with each other, and with the neighboring states. The principal bus and motor transport systems follow virtually the same routes as the principal railways, and touch all sections of the state. There are operating within the state 52 bus routes and 78 motor truck lines. There

Three great railroads serving Georgia, from left: Nashville, Chattanooga and St. Louis, Central of Georgia and The Southern.





The Seaboard Railway's "Silver Meteor," another crack streamliner serving Georgia and Georgia's interests from New York to Florida.

is no state highway indebtedness.

In 1946, motor vehicle registrations, including publicly and privately owned automobiles, taxicabs, busses, trucks and truck-trailers, totaled 583,000. They consumed 545,860,000 gallons of motor fuel, of which 533,008,000 gallons were taxed at a rate of 6 cents per gallon, contributing, in combination with registration and other fees, a total of \$34,634,000 to the state treasury. Total expenditures for state highway purposes amounted to \$22,258,000, and an additional \$5,820,000 was spent for non-highway purposes.

Among Southern states Georgia ranks fourth in highway mileage, sixth in total motor vehicle registration, and only six states spend more than Georgia for highway construction and maintenance.

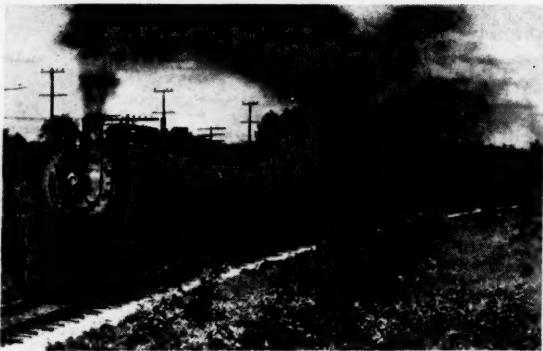
Highway and waterway facilities could not meet the increasing transportation demands of the state as population and production continued to expand. Strangely enough Georgia was, for a time, indifferent to the idea of railroads as a solution to the problem. However, when the Charleston and Hamburg Railroad in South Carolina completed a line in 1833 to the Savannah River opposite Augusta, the state was roused to action. Not relishing the possibility of the loss of shipping commerce, and knowing that Charleston, with this railroad, could capture the trade of the South and Middle West, a group of merchants of Athens sponsored the first railroad in the state. This was the Georgia, and it was planned that it should connect Athens with Augusta and the South



Georgia Railroad Company's shops and offices at Augusta.



"The Georgian," diesel-powered streamliner operated in Georgia by The Louisville and Nashville and N. C. and St. L. railways.



Georgia Railroad's "Crescent" running from Augusta to Atlanta.

Carolina lines.

The chartering of this railroad took place in 1833, and the railroads have played an increasingly important role in the development of the state and its resources each year since that time. Although the construction of that line at that particular time is reported to be due to the presence of the South Carolina line and the accompanying threat to Georgia's trade position, the natural course of events would have brought the railroads into a position of prominence within a short period of time, regardless of any competitive stimulants.

The construction of this road began when civilized people everywhere were interested in the stories and predictions concerning the steam engine. It was becoming apparent that the changes soon to take place as a result of the universal use of steam power, including its introduction into transportation, would

revolutionize social and industrial life.

There was an additional reason and need for the development of railroad transportation in Georgia. She, like most of her Southern neighbors, was experiencing a rapid expansion in the cotton growing industry, and their exports made up two-thirds of the total exports of the United States. The great obstacle to interstate trade and internal development was slow and costly transportation. Once started, the railroads grew naturally and rapidly. Another road chartered in 1833 was the Central of Georgia, and its first line was to run from Savannah to Macon, the center of the rich cotton belt. Construction took a long time, and many obstacles had to be overcome, but the road finally was completed to Macon in 1843, and Savannah's commercial position was secured.

Meanwhile, the ambition of Georgia and her neighbors to the north was to reach the trade of the Middle West by rail. Georgia had the advantage over its rival states in its geographical position nearer the goal and in a natural route that could be followed northward through the mountains. Private capital and initiative for this venture were lacking, so the state took the initiative, and, in 1837, it started the construction of a line that was to run from near the Chattahoochee River, at a point near Bolton, up into Tennessee.

To connect this line with Savannah, Augusta and Macon, plans were made for extending the already existing Georgia line westward, and for building a new line—the Macon and Western, now a part of the Central of Georgia—from Macon northward to a point where these two lines would meet the southern terminus of the state road. This spot was reached by the Georgia Railroad in 1845 and by the Macon and Western in the following year, and it served as the starting point of the all important route that would link the Mississippi Valley and the Southern Atlantic coast by rail.

This meeting place was first known as Terminus, and later (1843-47) as Marthasville, and was the site of the present city of Atlanta. The three railroads converging here were chiefly responsible for the phenomenal development of Atlanta, which soon became the most important inland transportation center of the state and of the Southeastern United States.

The state railroad was completed to Chattanooga in 1851. It was operated by the state for the next nineteen years, and since 1870 it has been privately operated under lease from the state. The Nashville, Chattanooga and St. Louis Railroad has held this lease since 1890.

Within a few years after the completion of this road, connecting rails from other roads made possible the movement of freight from Georgia westward as far as Louisville and Nashville and eastward up into Virginia.

The War between the States seriously retarded the development of the railroads. Tracks, stations and equipment were destroyed on a large scale in military operations, and Atlanta was reduced to ashes. Post-war recovery was rapid, however, even in the difficult times of reconstruction. Demolished tracks were relaid, old lines extended and new lines constructed



Foreground—Central of Georgia terminals and yards, and upper left—Seaboard Air Line terminals, located at Savannah.

throughout the state. Expansion of railroad facilities in and through the state has kept pace with agricultural and industrial development and expansion from that time to this, and today more than 35 railroad companies, including some of the largest systems in the country, are operating on 6,455 miles of track in Georgia, and are supplying adequate passenger and freight service from almost every section of the state.

In 1946, these roads carried, within the state, and to and from the state, carload freight totaling 33,981,167 tons. This tonnage was made up of farm crop, livestock, mineral, forest and manufactured products. These roads paid to the state in that year a total of \$3,890,843 in taxes.

In addition to inland terminal facilities, a number of the railway companies maintain large waterfront terminals and spend thousands of dollars annually on improvements and maintenance.

To supplement its rail and highway systems, Georgia has a well-developed system of waterways which do a large business each year in the transporting of raw materials and finished products for such industries as the pulp and paper. Some mills have reported that they have received as much as 50 per cent of their pulpwood via the inland waterways. There are barge lines operating on the Savannah River, the St. Mary's and the Darien at the present time.

An indication of the importance attached to this segment of Georgia's transportation system is the eleven dam system that has been worked out for the Savannah River. Work has already begun on the Clarks Hill Dam, which is the key project to this proposed system, and which will give Augusta a seven foot channel all the way to Savannah.

Georgia has two important ocean ports, Brunswick and Savannah. The Brunswick port carries on a brisk traffic in many commodities. In addition to its shipping trade, numerous industries thrive in Brunswick.



Road through Georgia pine forest. The largest road building program in the state's history is now underway.

There are shrimp canning and packing factories, a shipyard, a creosoting plant and a factory for manufacture of pulp paper from the fast growing pine of



General offices and maintenance base of Delta Airlines in Atlanta.



Eastern Airlines refueling at Atlanta's Municipal airport, largest in the south and one of the largest and finest in the country.

the area, which are part of the busy industrial scene.

Savannah, the state's largest port, is located on the Savannah River sixteen miles from the Atlantic Ocean. The city is one of the world's largest markets for naval stores distribution, and most of its commercial activity centers about the harbor that extends for eight miles along the river. Cotton, tobacco, rosin and turpentine have long held an important position among the goods shipped from Savannah, and they have been augmented by rice, hides, and other commodities and manufactured products.

The abolition of slavery and the collapse of the great plantations had a disastrous effect on the port and it all but ceased to function. However, even the poverty of reconstruction and the appalling yellow fever epidemic of 1876 failed to retard progress. Evidence of this was shown by the increased crops, improved bank credits and greater railroad facilities of 1879. Cotton and tobacco prices eventually reached their ante bellum height, and the surrounding pine forests created flourishing lumber and naval stores enterprises. When the Naval Stores Exchange was established in 1882, Savannah became the leading turpentine and rosin port.

When the twentieth century brought about a decline in the production of cotton and naval stores, the city turned to manufacturing. Savannah now has more than two hundred varied industries, including a large cottonseed oil plant, a paper factory, a sugar refinery, numerous fertilizer works and lumber mills, a cigar factory and seafood canning establishments.

The prosperity of the city, however, has always been measured by the activity of its port. In 1938 exports, including cotton, naval stores, tobacco, corn, sugar, lumber and other products were valued at almost \$20 million. In 1946 Brunswick and Savannah exported merchandise valued at \$94,800,000 while

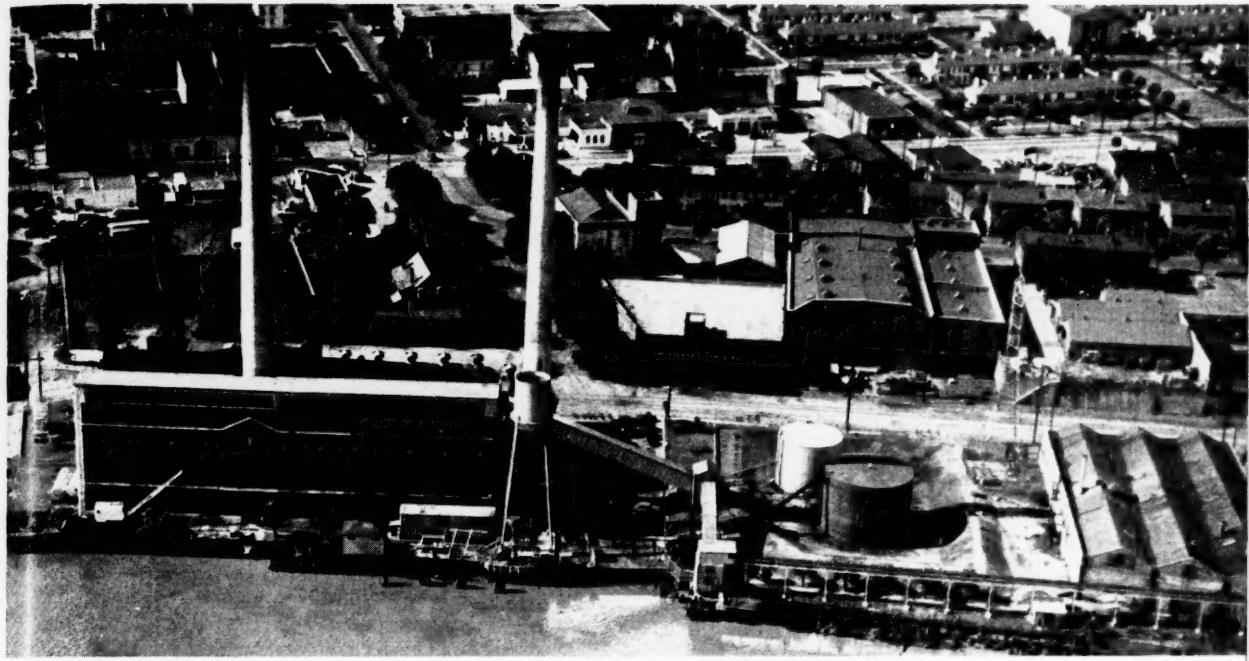
imports were valued at \$21,700,000.

The port of Savannah has a channel exceeding 25 feet in depth and 175 feet in width, and has over 50 slips or wharves and facilities for all oceanic traffic. Brunswick has a channel varying in width from 300 feet to 3,000 feet, and a depth of about 27 feet. Here there are 22 piers and wharves equipped to handle ocean going traffic.

For air, as well as for motor and railroad transportation, Atlanta is the foremost traffic center in the Southeast. Two large airlines first established routes through Georgia in 1927 and selected Candler Field, near Atlanta as the center of their operations. Today, four of the nation's largest airlines have established regular routes and schedules to and through Georgia, and Candler Field, the Atlanta Municipal Airport, is one of the largest in the country. The four large lines serving Georgia are: Delta, Eastern, National and Capitol. National serves a small area in the Southern-most part of the state, and Capitol has recently been franchised to go into Atlanta (effective April 28, 1948).

In addition to the installation at Atlanta, Georgia had in 1946 a total of 103 airports including, 30 of the commercial type, 26 municipal, 9 CAA Intermediate, 35 Military and 3 of other descriptions. Of this total 40 airports are lighted. Georgia ranks fifth among the Southern states as far as the total number of airports is concerned, and third as to the number lighted, and as to the number of class four (and over) airports (those equipped to handle the larger planes).

Georgia was one of the leading states in the country in aviation training during World War II, and in post-war years has continued this development to an extent that today places Atlanta, and Georgia, in a position of prominence among the commercial aviation centers of the nation, doing an annual passenger and freight business amounting to millions of dollars.



Above is the Riverside plant of the Savannah Electric and Power Co. which serves all of the highly industrialized Chatham County and parts of four adjoining counties.

POWER

Georgia's ever widening expansion of industry, especially since the close of the war, has placed a heavy burden upon the state's facilities for power production. Even with the enlarged demands for power, these companies have proved adept at meeting the requirements for industry and, by further expansions of their own facilities, are encouraging a still greater industrialization within the state.

Providing power for Georgia homes and industries are: the Georgia Power Co., serving more than four-fifths of the state's total area; Georgia Power and Light Co., with headquarters at Valdosta; the Savannah Electric and Power Co., and the Atlanta Gas Light Co.

Prior to the formation of the Georgia Power Co., more than 20 years ago, it was a common practice in the state for industries to operate their own power producing facilities. At that time the separate electric companies were generally unable to offer ample supplies of energy at low enough rates to win large industries as their customers.

Circumstances changed following creation of the present company in 1927. What had been several small, separate and isolated power systems were interconnected and strengthened into one large system able to provide more dependable service in greater volume all along its lines. Rate changes resulted in

cheaper power and a uniformity of rates all over the territory.

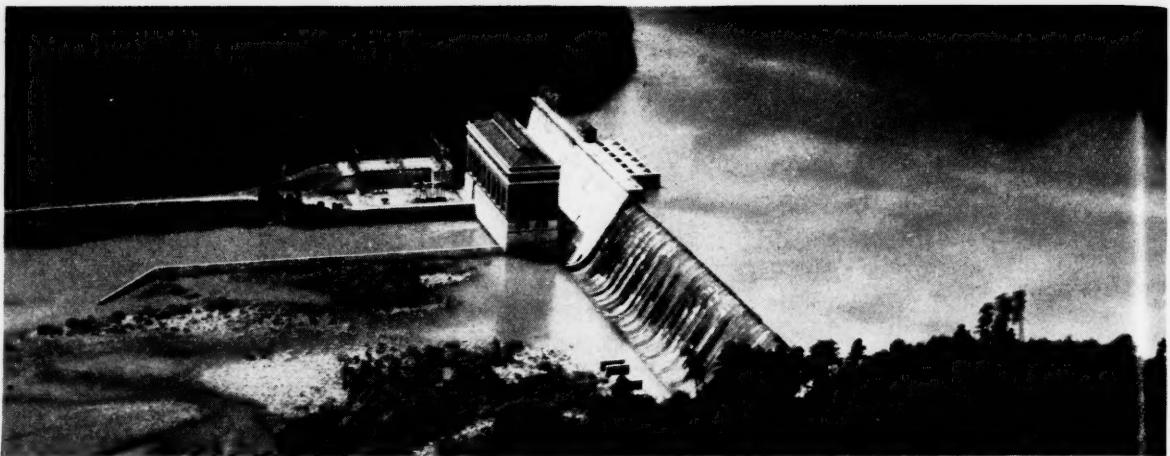
The trend to central power has been a dominant condition within recent years. Except in the case of pulp and paper mills where economy can be effected by the re-use of steam for processing purposes, few plants establishing in Georgia have set up separate power plants. Central station power for industries has become the rule.

Georgia's industrial progress is aptly indicated by the increases in the industrial loads on this company's lines alone. Before World War II, a gain in industrial load of 20,000 kilowatts during a year was a rarity. During 1946, the increase was about 49,000 kilowatts and in 1947, about 52,000.

Another index of the growth of industry is the actual increase in energy sales. During 1947, industrial customers of the company took a total of 1,629,060,367 kilowatt hours. This was a gain of 100,220,042 kilowatt hours over the figure for the previous year.

For the past several years the Georgia Power Company has conducted a statewide Community Development Program to assist communities in their efforts to provide improved living conditions and employment opportunities.

The company's generating facilities consist of 22

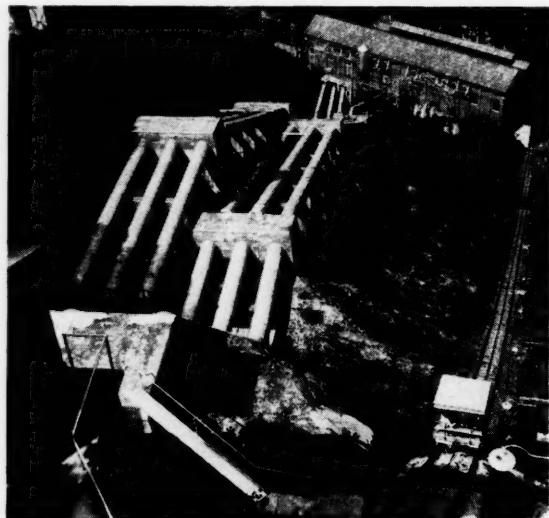


Yonah Dam and powerhouse, above, is one of six hydroelectric plants of the Georgia Power Co. in the mountain country of northeast Georgia. Yonah has a rated capacity of 22,500 kilowatts.

hydro-electric plants and eight fuel-operated power stations located in widely scattered parts of the state. Their combined rated capacity is 609,000 kilowatts. In addition, interconnection of the transmission system with power sources in neighboring states provides supplementary supplies of energy as needed.

In northeast Georgia is a chain of six hydro plants utilizing a fall of 1,198 feet along a 37½ mile stretch of the Tallulah and Tugalo Rivers. Including the notable Tullulah Falls development, the six powerhouses have an aggregate capacity of about 166,000 kilowatts.

There are seven hydro plants on the Chattahoochee River most of them in west central Georgia near Columbus. Nine others are located on other streams in different parts of the state. The total capacity of all 22 hydro stations is over 287,000 kilowatts.



Tallulah Falls power plant of the Georgia Power Co. was built in 1913. View shows the six penstocks through which water rushes down to the turbines below. The head is 608 feet.

The system includes four small steam-electric and two internal combustion plants, but the biggest sources of energy are Plant Atkinson near Atlanta and Plant Arkwright near Macon, both close to the centers of heavy industrial loads. Each is a modern steam-electric station. Plant Atkinson comprises three generating units with rated capacity of 60,000 kilowatts each. Plant Arkwright has three units of 40,000 kilowatts each.

Increasing industrialization has called for a rapid expansion of generating capacity. During 1947 the consumption of the Georgia Power Co. system totaled nearly four billion kilowatt hours, almost 13 per cent above the previous year.

At present, the company is engaged in the greatest construction program in its history. Work is nearing completion on a 60,000 kilowatt addition to Plant Atkinson, which will bring the total capacity of this station to 240,000 kilowatts. A 40,000 kilowatt addition to Plant Arkwright is also under construction which will increase capacity there to 160,000. Both of these new units are scheduled for service during the latter part of 1948.

Meanwhile, an entirely new steam-electric plant, to be known as Plant Mitchell, is being built near Albany in south Georgia. Its first unit of 22,500 kilowatts is to start turning this year and a second unit of equal capacity will be ready in 1949. These additional facilities will bring the company's generating capacity up to 754,000 kilowatts, or more than a million horsepower.

The Savannah Electric and Power Co. serves all of highly industrialized Chatham County and parts of four adjoining counties. The company operates the Riverside plant with a rated installation of 35,500 kilowatts. Under an important expansion program recently approved by the stockholders, a 20,000 kilowatt addition is being added to the plant at a cost of \$3,700,000. Other improvements include facility extensions in all parts of the territory served. Supplementing their own plant they have access to additional power from the Georgia Power Company.

Headquartered at Valdosta, the Georgia Power and Light Company serves 22 counties in Southern Georgia, securing most of its power from the Florida Power Corporation, a sister company. Its facilities include a steam plant at Waycross.

Natural gas is available in 21 communities in Georgia including cities in which a large part of the tremendous textile industry is concentrated. Almost the entire supply of natural gas is furnished through the facilities of the Atlanta Gas Light Co., which secures its supply from the Southern Natural Gas System. The hundred-year-old company supplied more than 39 billion cubic feet of natural and manufactured gas during 1947 to its 146,079 customers, reaching from the Florida border almost to the Tennessee border. Extension of natural gas service to other communities is contemplated in applications now pending with the Public Service Commission.

In all, 66 power utility companies serve the state, employing nearly 8,000 persons, and turning out, all told, over three billion kilowatt-hours of energy per year.

Of the entire production, three fifths, or 1.8 billion kilowatt-hours go to turn the wheels of industrial enterprise. In addition, 500 million kilowatt-hours of energy are supplied to commercial enterprise, 800 million to residential users, and nearly 100 million for street and public building lighting and other miscellaneous purposes.

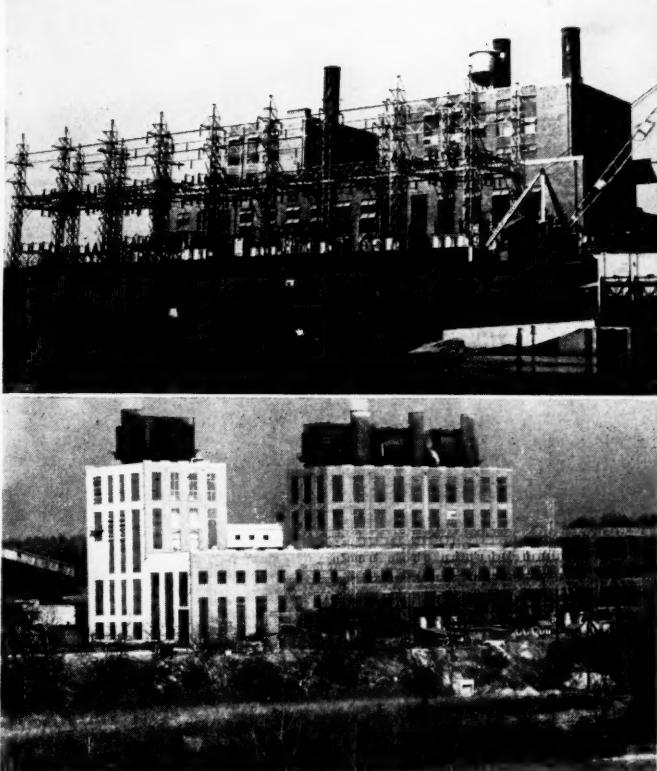
Of the three billion kilowatt-hours turned out each year by the state's power facilities, nearly half, 1,469,000,000 kilowatt-hours, are produced from hydroelectric plants, with 1,569,000,000 being produced by steam, and a very small portion by internal combustion methods.

Latest reports show installed generating capacity for the entire state to amount to 715,026 kilowatts. Of this capacity, 342,892 kilowatts consist of hydroelectric equipment; 369,900 kilowatts steam, and 2,234 internal combustion.

Water power potential, to a vast extent still unused, lends credence to current belief that power development in the future will be largely of hydroelectric variety. Georgia is reported to have an unused hydroelectric potential of around nine million acre feet, which is no mean supply as can be seen from a comparison with the vast water potential available to the TVA area. This latter, rated as one of the most voluminous of the nation embraces in the neighborhood of fifteen million acre feet.

A noteworthy commentary to power development in the state has been the rapid expansion of farm electrification. Of the 216,033 farms listed by the census of 1940, 73,795, or 34.2 per cent were served by power lines. By January 1, 1946 electrified farms had increased to the number of 82,500, or 36.5 per cent. One year later, in the early months of 1947, farms on power lines numbered 103,100 and represented 45.6 per cent of all farms in the state. While 1946 was a year of intensive expansion of farm electrification throughout the South, Georgia was in the forefront of this form of progress, being exceeded only by Louisiana and Texas, and by these states by a very narrow margin.

Viewed as a vital adjunct to the state's progress

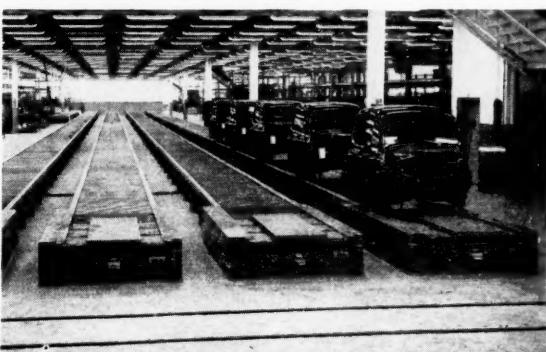


Top—Plant Arkwright Georgia Power Co. plant near Macon has a capacity of 120,000 kilowatts, to be increased to 160,000.

Bottom—Georgia Power's Plant Atkinson is the largest electric power plant in the state. Capacity will be raised to 240,000 kilowatts.

industrially and otherwise, power expansion and efficiency of operation must be counted among the state's greatest assets.

With old industries expected to expand greatly within the next few years and with the establishment of an entirely new group of industries, power requirements in the state will doubtlessly be even greater than during the past few years. Aware of this, power companies serving the state are planning for this future demand to assure that Georgia industry will have the power it needs.



The Ford Motor Co. plant at Hapeville, is an example of new industry for which power is provided by the various state power companies.



State Capitol Building, Atlanta.

STATE FINANCE — TAXES

The state of Georgia is in a relatively enviable financial position, being free of any bonded indebtedness in excess of sinking funds on hand. As of December 31, 1947, Georgia carried a surplus of more than \$840,000 above every obligation of the state and its agencies, according to a statement issued by the state auditor.

Further, the state has on hand \$80,500 for payment of outstanding general state bonds. There was also a balance of the debt assumed by the state in 1936 for the benefit of the various counties for road construction. This obligation—amounting to \$2,650,000—had been set aside in a sinking fund, prior to liquidation of this debt on March 15, 1948.

As a whole, taxes are reasonable and expenditures are moderate. Whether these two are higher or lower than they should be depends upon individual concept of what are the proper functions of a state government.

The state is the owner of a railroad between Atlanta, Ga., and Chattanooga, Tenn., and has this source of revenue in addition to taxes, licenses, fees and other income received by the various Depart-

ments. The railroad is leased to the Nashville, Chattanooga, & St. Louis Railroad under a long term lease, and is operated by that company. In the past, income from such lease has been discounted. In anticipating income from this source, the State has been able to obtain revenue when urgently needed without increasing taxes or bonding the state. The last of these discounted rental warrants, maturing at the rate of \$45,000 on the first day of each month, will be due December 1, 1949. The state is holding in a cash sinking fund the full amount needed to liquidate this remaining obligation of \$1,215,000 in full.

The revenue of the state from all sources including Federal grants and other non-tax sources, except unemployment taxes, totalled \$143,336,000 for the fiscal year ending June 30, 1947. In 1941, such receipts were only \$78,835,000. The state has not followed many of the other Southern states in imposing a sales tax, but more than three-fourths of this revenue was derived from personal and corporate income with selective sales tax. As no new taxes were added, the increase over 1941 is due to the change in the level of state income and in expanding business activities.

The major sources of tax receipts are: alcoholic beverage tax with a warehouse storage charge, cigar and cigarette tax, income tax, insurance premium tax, malt beverage tax, motor fuel tax, and the general property tax which includes intangible personal property.

The most important source of non-tax revenue was Federal grants for specific purposes. This mounted to \$29,419,575 for the fiscal year ending June 30, 1947, and represented 20.5 per cent of the total revenue receipts. Other non-tax revenue aggregated about half of the amount of Federal aid received.

Federal income taxes are allowed as a deduction in Georgia. The rate for individuals begins at one per cent after a liberal exemption of \$2,500 in the case of a married person living with husband or wife. The law provides for a progressively increased graduated scale as net income increases above this exemption, but even the large income taxpayer cannot be made to pay more than seven per cent on their highest income.

Unless specifically exempted, all domestic and foreign corporations owning property or doing business in the state are taxed on their net income at the rate of $5\frac{1}{2}$ per cent. An alternate basis is provided, though, as well as a three-factor ration in the allocation of business done outside of the state.

Intangible personal property is classified for taxation in Georgia with the rate varying according to classification. Money is taxed at the rate of 10 cents on each \$1,000. Notes and obligations secured by loans on real estate are taxed at the rate of \$3.00 per \$1,000. Federal Savings and Loan Association, State Building and Loan Association and the Federal Housing Administration, however, are taxed at the rate of \$1.50 on each \$1,000 up to \$5,000 on notes and obligations secured by loans on real estate. All amounts in excess of this sum are taxed at the rate of \$3.00 per \$1,000.

Broker loans, representing credits extended in connection with the purchase or sale of stocks, bonds or other like security held as collateral for such loans, are taxed at the rate of 50 cents on each \$1,000 of fair market value. Stocks in foreign corporations and foreign domesticated corporations are taxed at the rate of \$1.00 on each \$1,000 of fair market value, except those paying intangible income and franchise taxes in Georgia. All other intangibles are taxed at the rate of \$3.00 on each \$1,000 of fair market value. Obligations of the United States Government are exempted with evidence of debt of the State of Georgia, its public institutions, municipal corporations and subdivisions.

The taxation of property has been one of the principal sources of revenue in Georgia since colonial days. The Constitution of the state, however, limits such taxation to five mills on each dollar of the value of the property taxable in the state. During the fiscal year ending June 30, 1947, only \$5,704,000 was realized by the state from such tax after excluding the amount received from the intangible personal property. This source of revenue has been supplanted, in so far as the state is concerned, by income and selective sales taxes as already noted.

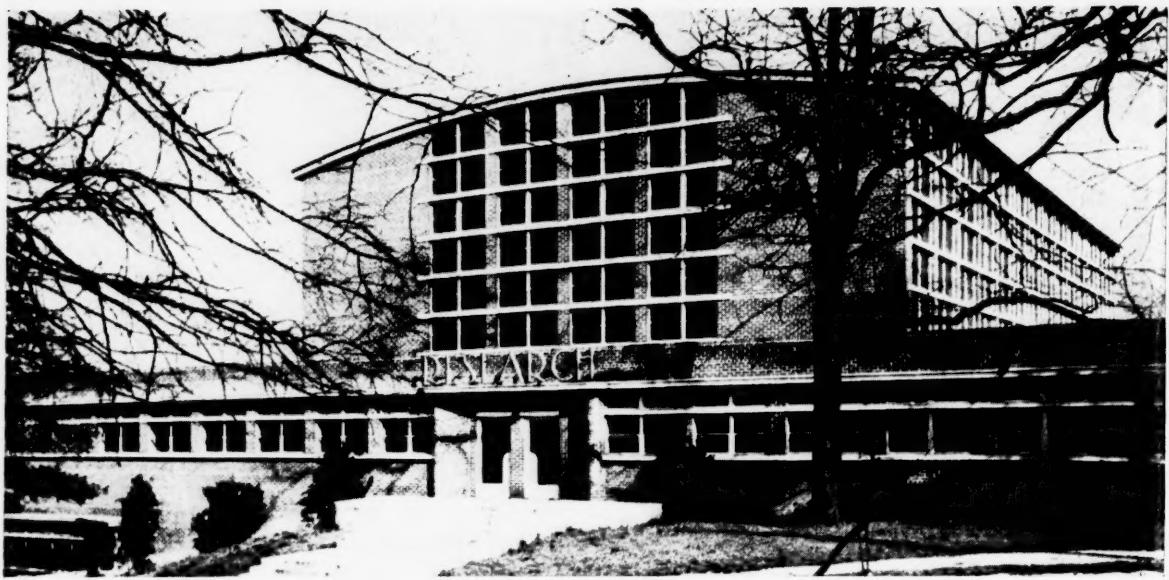
The property tax is, however, the principal source of revenue for the counties, municipalities and school districts of the state. The General Assembly has limited the purpose for which counties may make a levy. The Constitution provides that the several counties shall levy tax for the support and maintenance of education, in an amount not less than five mills upon the dollar. The municipalities are also limited as to their levy of taxes on property. They are only permitted to make a levy of one-half of one per cent of the value of the property for current expenses. If additional funds are required by a municipality for internal improvements, two-thirds of the legal voters must authorize the levy of an additional tax at an election held for such purpose. Most of the municipalities do have extensive licensing powers which are used with the state. No accurate current data is available, however, as to the revenue collected by counties, municipalities, and school districts. This has been estimated to be about \$48,500,000 annually.

The usual unemployment compensation taxes are, of course, imposed upon employers of eight or more people. The amount collected in 1947 was \$12,618,000. Like most of the other states, Georgia's taxes are levied in accordance with a schedule which recognizes stability of employment. The state law was amended at the 1947 session of the General Assembly, and a new table of rates was established which lowered the experienced rate, effective with taxes or wages paid after July 1, 1947. The lowest available rate to an employer before this amendment was one per cent of his taxable payroll. Under the amendment the employer's reserve requirement was lowered, and the minimum rate was reduced to one-half of one per cent of the taxable payroll. This reduction has provided an additional experienced rating saving of approximately \$1,100,000 for employers of Georgia during the third quarter of 1947.

The favorable picture reflected by the present financial condition of the state is naturally clouded to some extent by the uncertainty of future business activities, employment, and other factors. This situation was met by the General Assembly at its 1947 session through the establishment of an interim legislative Tax Revision Committee. It was also realized by the Assembly that the state has many inequities in its tax system. The interim Committee was requested to study and suggest a program for a revision of the entire tax structure of the state, and to propose to the General Assembly those amendments to the tax laws which would strengthen, equalize, clarify and simplify the present tax system.

The people of the state are cooperating with the Tax Revision Committee in their study. Most of the Chambers of Commerce have set up special committees to study tax revision. The state Bar Association, the state Bankers' Association, the Georgia State Chamber of Commerce, the Georgia Junior Chamber of Commerce, together with other state-wide and local organizations are also assisting the committee.

There is a definite feeling throughout the state that through this Committee, Georgia will take the lead in establishing a financial structure based on a stable revenue, equitably collected and wisely spent.



Main Building, Georgia Tech Engineering Experiment Station. Largest of its kind in the Southeast, this station makes available a unique combination of research services.

RESEARCH

In Georgia, the rising tide of industrial and agricultural activities has brought with it an increased awareness of the need for research devoted to local, state, and regional problems. To meet this need, private industries have established a number of research laboratories, and the State of Georgia has created several research organizations designed to render specific services.

A recent publication of the National Research Council shows that there were 26 industrial research laboratories in Georgia in 1946, all but two or three supported by private companies for the conduct of their individual research operations.

A rough breakdown of their fields of research shows, as might be expected, that most of these laboratories deal with products and processes highly pertinent to this area; six are concerned with clays and clay products (ceramics, and rubber and paper fillers), five deal with textiles, three with pulp and paper, three with vegetable and animal fats and oils and their products, two with rubber and rubber chemicals, two with fertilizers, two with minerals, and one each with agronomy, cellulose, confectioneries, corn products, dyestuffs, essential oils, maple products, naval stores, pharmaceuticals, rayon, and wood preservation. This last list totals more than 26, which is accounted for by the fact that several laboratories work on a number of products.

It is probable, of course, that this tabulation is by no means complete. Many organizations employ plant engineers and chemists whose duties include solution of minor research problems. Nevertheless, it is interesting to note that the National Research Council reports that the following organizations operate re-

search laboratories in Georgia: Augusta Chemical Company, Brunswick Pulp and Paper Company, Callaway Institute, Inc. (La Grange), Centaur Company (Atlanta), Edgar Brothers Company (McIntyre), General Tire and Rubber Company (Barnesville), Georgia Kaolin Company (Dry Branch), Hercules Powder Company (Brunswick), Herty Foundation Laboratory (Savannah), Huber Corporation (Huber), International Minerals and Chemical Corporation (East Point), Law and Company (Atlanta and Macon), Poole Maynard (Atlanta), Metasap Chemical Company (Cedartown), Monarch Manufacturing Company (Atlanta), Penick and Ford, Ltd., Inc. (Atlanta), F. S. Rostyer Guano Company (Atlanta), Seydel-Woolley and Company (Atlanta), Southern Wood Preserving Company (East Point), Swift and Company (Atlanta), Thompson, Weinman and Company, Inc. (Cartersville), Tubize Rayon Corporation (Rome), Union Bag and Paper Corporation (Savannah), United States Rubber Company (Hogansville), and West Point Manufacturing Company.

As mentioned, the University System of Georgia has been entrusted by the State with the operation of several research groups. Among these are the State Engineering Experiment Station of the Georgia School of Technology, at Atlanta; the Georgia (Agricultural) Experiment Station, at Experiment; the Georgia Coastal Plain Experiment Station, at Tifton; and the Georgia Agricultural Extension Service, at Athens.

In addition, many of the units of the University System, such as the Georgia School of Technology and the University of Georgia, also engage in pro-

grams of fundamental research on the graduate and faculty levels. Research programs are also conducted by such privately-supported schools as Emory University. The latter school and certain clinics engage in considerable medical and biological research.

Space does not permit details of the types of research conducted at all of the state experiment stations. The Georgia Agricultural Experiment Station conducts extensive experiments on growing such crops as high-yield cotton, hybrid corn, peanuts, etc.; on the preservation of fruits and berries by freezing and canning, etc. Agricultural research applicable to three-fifths of the farming area of Georgia is conducted by the Georgia Coastal Plain Experiment Station, typical studies including cotton plant fertilizers, crop rotation, grasses, kudzu, animal husbandry, animal diseases, etc.

The State Engineering Experiment Station of the Georgia School of Technology is the largest of its kind in the Southeast and makes available to this area a unique combination of research services. The Station, by coordinating and advancing the research activities of Georgia Tech through an integrated program of fundamental and applied research, serves to aid in the development and integration of industrial and agricultural activities and the better utilization of resources in the South through its investigations and technological studies.

In 1946-47, for example, the Station conducted 30 major and 18 minor research investigations, requiring the full-time services of 66 persons and the part-time assistance of 100 others, including faculty, graduate students, and student assistants. To name but a few recent projects, (1) a portable X-ray machine was designed and developed for an Atlanta equipment company and is now in industrial use, (2) engineering development work on the impregnation of woods with dimethylol urea was brought to commercial fruition for a Georgia lumber company, (3) an intensive study of primers in two-coat exterior paint systems on Southern yellow pine was conducted for an industrial group, (4) commercial development work on bast fibers was conducted for both a government agency and a private firm, (5) a ceramics plant at Marietta, Georgia, was constructed by a private firm as an outgrowth of an applied research project, (6) a plastics molding firm was established in Atlanta following development work at Georgia Tech, (7) an extensive food freezing project is currently being conducted, and (8) various electronics and chemical engineering projects have been (and are being) conducted for Government agencies.

In addition to its own modern research building, a recently-completed research annex, and a number of smaller structures, the Station has available and utilizes the technical facilities of the various engineering and science departments of the school. Besides performing engineering and scientific research, the Station maintains a Technical Information Service and an Industrial Economics Research Staff which offer a variety of informational and economic services.

From a constructive point of view, it would appear that Georgia—its industrialists, farmers, and state

officials and legislators — have really grasped the fundamental reasons why research is needed and must be conducted—to solve problems encountered by industry and agriculture, to improve existing products and processes, and to lay the foundations upon which tomorrow's civilization will build. It cannot be pretended that the optimum amount of research has been conducted in Georgia in the past, or that present research operations are completely adequate. Buildings, equipment, and men are definitely needed. It does not appear improbable, however, that these will be supplied as time goes on—but it is equally clear that the practicalities of the picture must be kept in focus at all times. Research work is not the pastime of a few "mad scientists," gaily playing with elaborate and expensive toys; it is a field in which trained men, properly equipped, can contribute much to the individual and collective welfare.

In Georgia, moreover, there is an increasing realization that the State possesses and must continue to acquire a raw material distinct from the inanimate resources of its soil—educated Georgia youth. It used to be said that Southern colleges, especially in the scientific and technical fields, apparently existed for the sole purpose of training men and women for the industries of the north and west. If this was ever true, it is not so now, for Southern industrial progress is offering increasing opportunities for retention of its skilled manhood. If continued progress is to be had, however, Georgia and other Southern states must add to and make adequate their facilities for graduate and undergraduate education, both as regards buildings and faculties.



Georgia Coastal Plain Experiment Station, part of the University system, operated in cooperation with the United States Extension Service.

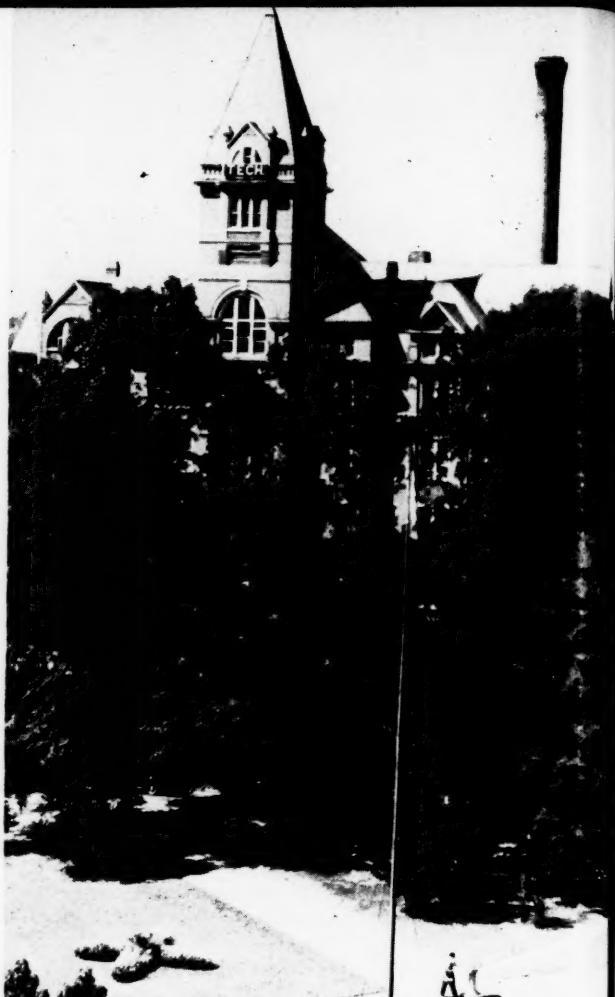
EDUCATION

Georgians are rightfully proud of their state educational system and of the public and private institutions of higher learning which have brought national recognition to the state.

Envy of many a richer state is Georgia's unique University System, which unites a total of 17 institutions of higher education under a central administration. With a Chancellor and Assistant Chancellor as executive officers, the University System of Georgia coordinates the work of five institutions of college and university status, the two professional schools, the state teacher's college, three Negro colleges and six junior colleges.

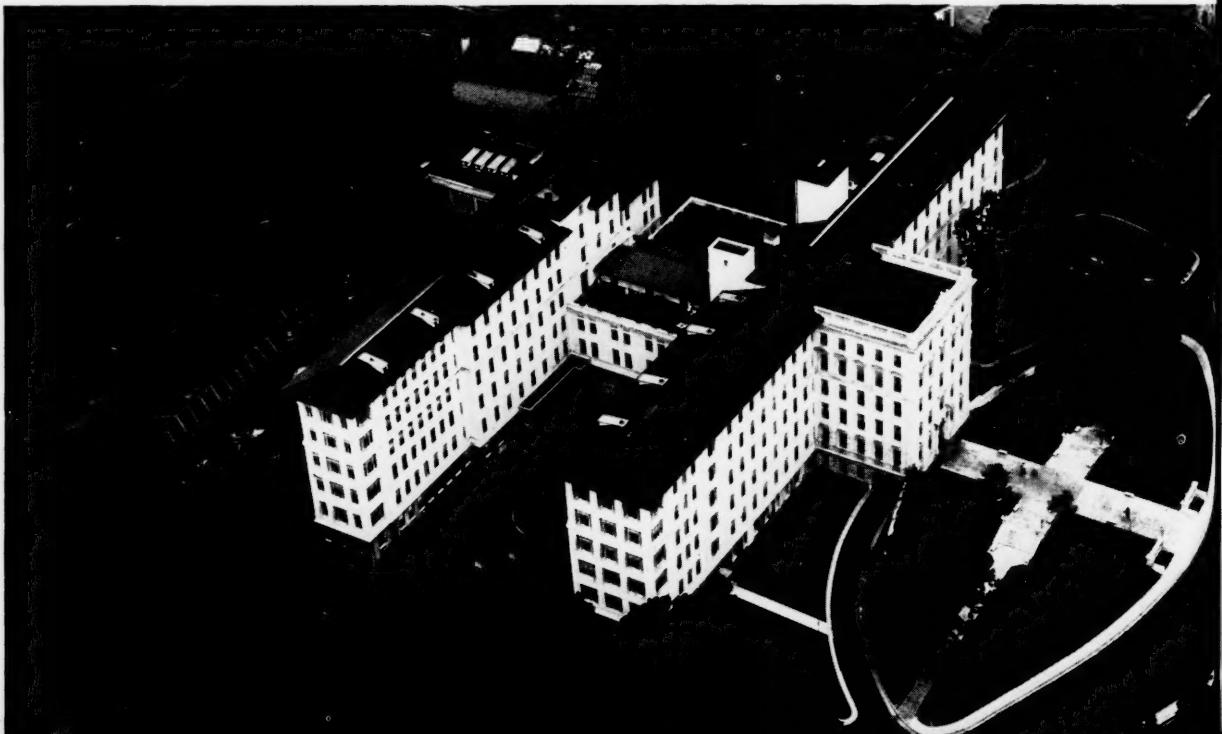
With a top-flight educator at its head, the University system organization standardizes educational requirements and standards for all the state schools and prevents over-lapping and needless duplication. While each state institution has its own president, its own business organization and its own faculty and staff, the University system is the over-all guiding body which sets policy and works with the state legislature and other state agencies in planning expansion and coordinating the needs picture for all.

At the top of the state's higher educational system is the state Board of Regents which is the final authority in all cases. The officers of the University system



Above is the Administration building at the Georgia School of Technology, Atlanta, one of the nation's leading engineering schools.

The Emory University Hospital is located on the university campus in the Druid Hills section of Atlanta. The hospital is known all over the Southeast as a great center of medical care, teaching and research.



and of each institution in it are responsible to the Board and, through its members, to the people of the state, for the discharge of their duties.

Included in the Georgia University System are the following:

Universities and colleges: Georgia State College for Women, a fully accredited, four year college for women at Milledgeville, the pre-Civil War state capital; Georgia State Woman's College, Valdosta, also an accredited, four year school for women; the University of Georgia, at Athens, including a College of Arts and Sciences, Graduate School, and Colleges of Pharmacy, Education, Agriculture, Home Economics, Forestry, Business Administration, and Journalism; and the University of Georgia, Atlanta division.

The state's professional and technical schools include Georgia Tech, one of the nation's leading engineering and technological schools, and the University of Georgia School of Medicine, at Augusta, an approved four-year medical college.

The Georgia State Teachers College, located at Statesboro, has a well-earned reputation of excellence in the field of teacher training, and is the state's only institution of higher education devoted entirely to the education of teachers.

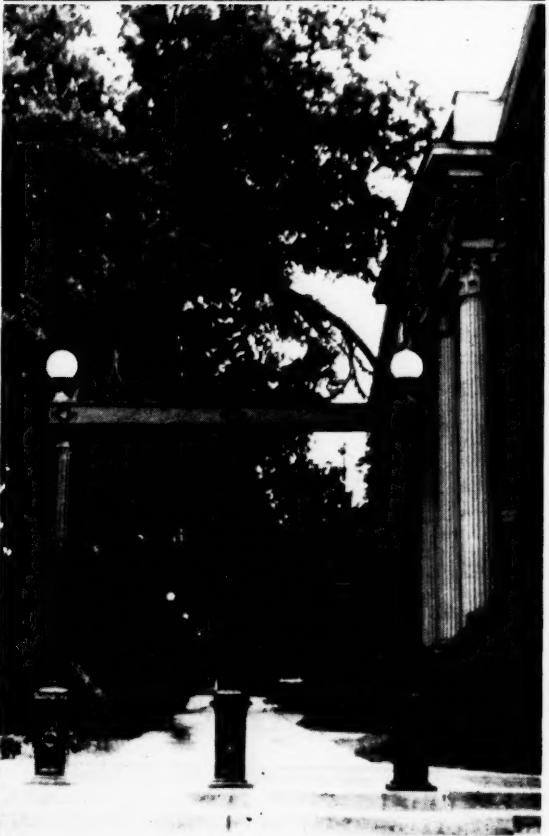
The University also includes three excellent institutions for Negroes: Albany State College, Fort Valley State College, and Georgia State College.

Well-represented too, are the junior colleges, with a total of six being operated by the University system. They are Abraham Baldwin Agricultural College, at Tifton; Georgia Southwestern College, at Americus; Middle Georgia College, at Cochran; North Georgia College, Dahlonega; South Georgia College, Douglas; and West Georgia College, Carrollton.

In addition to the schools included in its University system, however, Georgia is well supplied with really outstanding private institutions. There are eleven of them on the college and university level, including six women's colleges and three listed as universities.

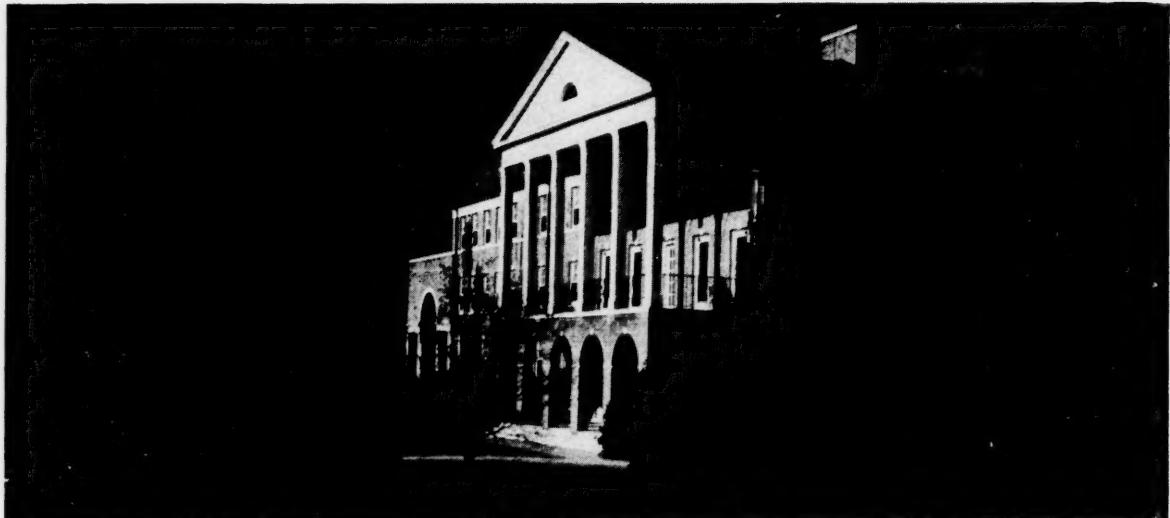
Emory University, in Atlanta, is one of the South's outstanding educational institutions. More than 110 years old, Emory is fully accredited as a university and for each of its schools and colleges. Included are the following: College of Arts and Sciences, Graduate School, School of Law, School of Medicine, School of Nursing, School of Dentistry, School of Theology, School of Business Administration and Library School. With an endowment in the neighborhood of \$13 million and a physical plant valued at almost \$14 million, Emory has one of the most beautiful campuses in the entire South. The Emory University Hospital is known over the Southeast as a center of medical care, teaching, and research.

Mercer University, at Macon, founded by the Bap-



Right above—Wesleyan College at Macon is the oldest exclusively women's college on a four-year basis in the country.

Below—The famous arch at the University of Georgia. The state university located in Athens, includes an Atlanta division.



South Hall at Wesleyan College is one of many striking buildings on the campus. The school has many prominent alumnae.

tist Church, numbers among its alumni some of the outstanding citizens of the state. It includes a College of Arts and Sciences, a Graduate School, and a School of Law. It has for many years been noted for the all 'round excellence of its educational plant.

The oldest exclusively woman's college on a four-year basis in America Wesleyan College at Macon, is one of the state's outstanding institutions as are Agness Scott College, in Decatur, Bessie Tift, at Forsyth, Brenau College, at Gainsville, La Grange College, at La Grange; and Shorter College at Rome, all woman's colleges.

Among the other colleges and universities are Berry College, at Mount Berry, heavily endowed by Henry Ford; Oglethorpe University, in Atlanta; and Piedmont College, at Demorest, in the beautiful mountain region of North Georgia. Private professional and technological schools include: Atlanta Law School, Columbia Theological Seminary; Southern College of Pharmacy; and the Woodrow Wilson Law School.

Georgia is also the home of several of the nation's top Negro schools. The Atlanta University System, a cooperative organization of institutions in the state capital, includes Atlanta University, the Atlanta University School of Social Work, Clark College, Morehouse College, and Spelman College. Gammon Theological Seminary, also in Atlanta, is the only approved Methodist theological seminary for Negroes in the country. Other Negro institutions in the state are Morris Brown College, in Atlanta, and Paine College, an excellent Methodist institution at Augusta.

The state also has the following junior colleges. Andrew College, Cuthbert, Armstrong Junior College, Savannah; Brewton-Parker Institute, Mt. Vernon; Emanuel College, Franklin Springs; Emory Junior College, Oxford; Emory Junior College, Valdosta; Georgia Military Academy, College Park; Georgia Military College, Milledgeville; Gordon Mili-

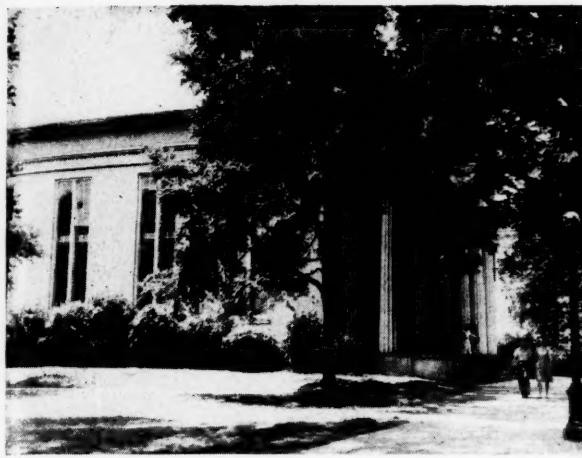


The Chemistry building at Emory University. This structure, like many others on the campus, was built with Georgia marble.

tary College, Barnesville; Junior College of Augusta, Augusta; Norman Junior College, Norman Park; Reinhardt College, Waleska; Riverside Junior College, Gainesville; and Young Harris College, Young Harris.

There are 4,622 public schools in the state of Georgia, operated by the various county and city governments. The over-all state body is the Georgia State Education Department, which has gained a nationwide reputation for its able and progressive planning, aimed at bettering the quality of education given the state's children.

Georgia took a long step forward when the General Assembly passed, in 1945, a new and modern compulsory school attendance law. This new law authorizes city and county boards of education to em-



Campus scene, University of Georgia.



Civil Engineering Building, Georgia Tech.

ploy visiting teachers to enforce the act. The chief functions of visiting teachers are to investigate cases of unlawful school absences, study carefully the causes of such absences, consult with parents and teachers in helping to eliminate the causes of non-attendance, and to coordinate the efforts of the school, home and community welfare agencies in discovering and diagnosing problems relating to irregular attendance and in finding solutions for these maladjustments.

Georgia was the fourth state in the union to set up a state-wide visiting teacher service in relation to compulsory school attendance. A specialized and professional service is rendered by visiting teachers, quite different to that which characterizes the attendance of truant officers of the past. School enrollments and attendance increased almost everywhere with the institution of the new system.

In its program of library service and in supplying free textbooks, Georgia has made great progress during the past decade. The 1937 General Assembly passed the free text book bill, and the Board of Education now operates a program under which all children from the first through the eleventh grades are furnished a supply of textbooks in all subjects. This program has brought improvement in school enrollment, attendance and promotions.

Schools also have benefited greatly from the rural library program started in 1944. Many of them serve as centers for distributing books to the entire community. The rural library fund has assisted in the establishment of extension of free public service to the rural population in 122 of the state's 159 counties. It has stimulated 23 of these counties to give even further service through the establishment of 10 multi-county or regional libraries.

Books are distributed through cooperation of home demonstration agents, county agents, instructional supervisors, visiting teachers and other county workers.

Five phases of vocational education are carried on in the state's public schools: vocational agriculture, vocational homemaking education, distributive education, trade and industrial education, and occupa-

tional information and guidance.

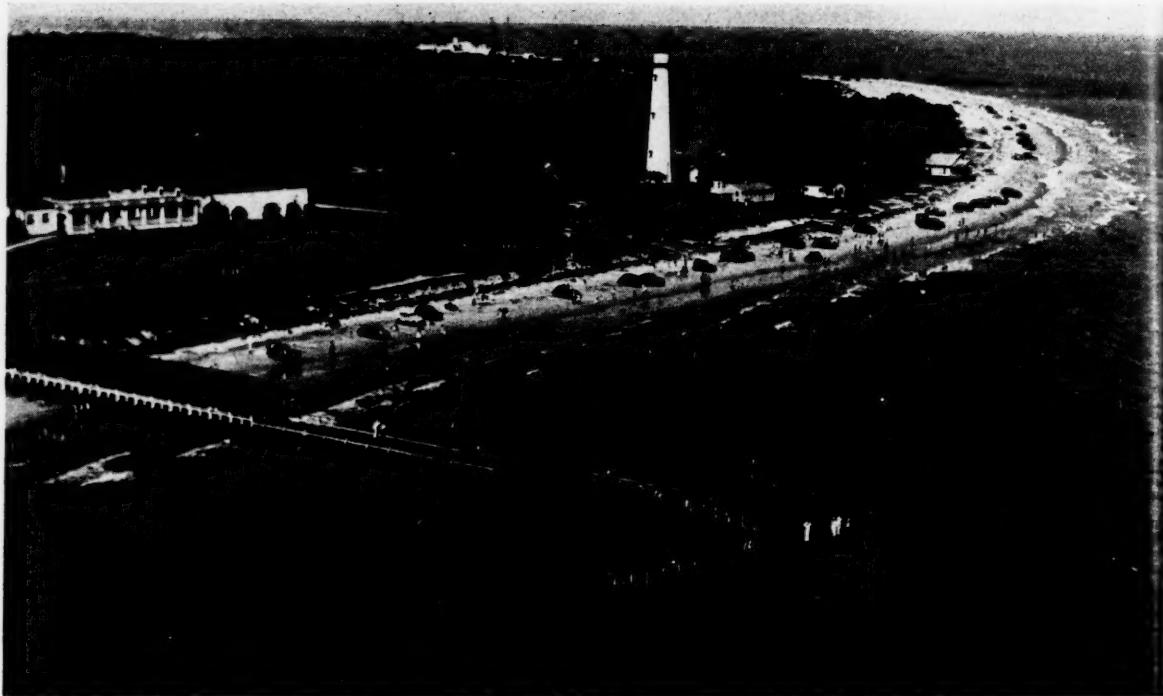
In addition, for the biennium 1945-46, Georgia stood at the top of the list of states in the nation in vocational rehabilitation. This was not, incidentally, in ratio to population, but in actual numbers, which means that the ratio of accomplishment would have been far higher. As an example of the effectiveness of this program, the annual earnings of the persons rehabilitated during that period amounted to \$624,000. The program itself cost some \$675,000. Their annual earnings after rehabilitation amounted to \$3,260,000.

Georgia's school lunch program, during the fiscal year 1945-46, the last for which published figures are available, was a \$6 million business. Every county in the state has at least one lunch program during that period, and 4,110,540 lunches were served absolutely free.

In the area of special services would be listed Georgia's School for the Deaf, located at Cave Springs, and the School for the Blind at Macon.

During 1945-46, the School for the Deaf had a total enrollment of 273 pupils from 94 counties in the state, including 54 Negro students. The faculty consisted of 26 academic teachers and 10 vocational teachers. Graduates of the school make excellent records after leaving the institution and morale among the students and alumni is high.

The school for the Blind has an enrollment of 107 students during the period mentioned, and a faculty of four men and 10 women. Consisting of both grammar school and high school, the program of this institution is fully accredited by the State Accrediting Commission. In addition to the regular literary curriculum, students may take piano, pip organ, chorus, stringed instruments, and typing. Industrial subjects include woodwork, piano tuning and repairing, chair caning and seating, broom-making, basketry, weaving, crocheting, knitting, sewing, etc. All children are taught typing as soon as they are able to spell. Considerable emphasis is placed on human relations as a means of preparing the youngsters for taking their places in the social and business world.



St. Simon's Island, Georgia's Atlantic Coast seashore resort, is reached from Brunswick by a four-mile causeway. The beach has excellent fishing grounds.



RECREATION

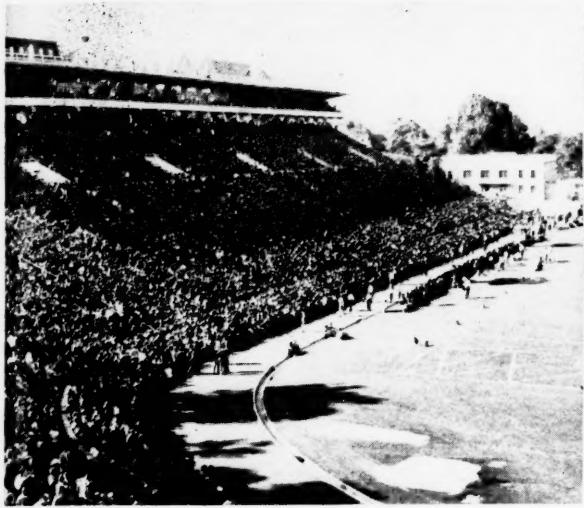
From the incredibly beautiful mountain regions of its northern Piedmont section to the impressive resorts lining its Atlantic coast, Georgia offers a vacation land in which its citizenry takes fierce pride.

Georgians are aware of the state's great natural beauty, and its diversity of scenery, climate and historical attractions. Thousands find their favorite diversion on the beaches of St. Simons Island and Sea Island. Additional thousands trek to inland fields and streams to experience the myriad pleasures known to hunter and angler.

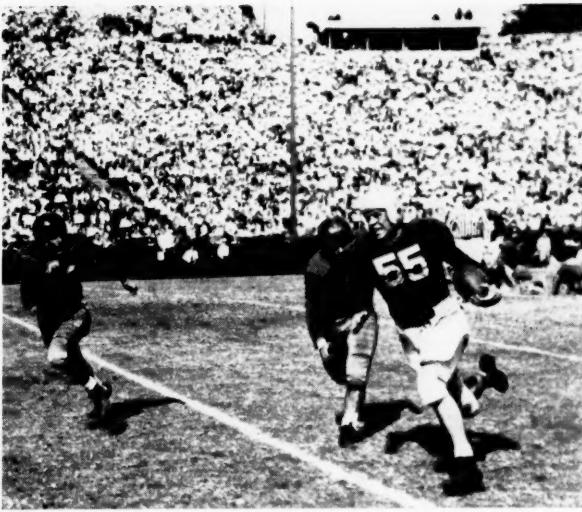
But it is the out-of-state tourists whom Georgia presently wishes to educate to its varied attractions. In 1947, visiting tourists spent a total of \$82,246,500 in Georgia. While this figure sounds impressive, state officials do not feel that Georgia's vacation industry is sufficiently large, especially in view of the multitude of attractions which the state can offer vacationists.

As a means of enlarging its tourists volume, as well as to give its citizens an additional site for recreation, the state recently purchased Jekyll Island for development into a state Park. With such an impressive

Bird hunting is a favorite pastime with many Georgians. Quail and dove are plentiful.



Each fall thousands crowd into Grant Field in Atlanta to view the "Yellow Jackets," Georgia Tech's famed football team.



University of Georgia's Captain Dan Edwards dashes the last ten yards to score in the 1947 victory over Louisiana State.

ture, it is hoped that Georgia's tourist volume will expand in the next ten years until it has reached the figure of \$246,000,000 annually.

Jekyll Island is to be part of Georgia's State Park System which is rapidly becoming one of the state's outstanding recreational and tourist attractions. Virtually unknown a few years ago, the system has been expanded until it now includes 21 parks and areas and approximately 50,000 acres of land valued at \$12,000,000.

As the state's newest acquisition, Jekyll Island, on the Georgia coast near Brunswick, alone includes 11,000 acres and 36 buildings and installations which

will be a \$3,000,000 asset when development of the island is completed.

The island offers some of the best fishing on the Atlantic Seaboard. Speckled trout, whiting, sheepshead, spot, drum and other species can be caught at the various fishing drops along Jekyll river. Eighty pounds of winter trout were recently caught there by a group of fishermen in three hours. In addition there are approximately 600 deer on the island and numerous wild hogs imported from Germany, but no hunting will be permitted. Water fowl will also be protected but marsh hen hunting may be permitted in the island's 5,000 acres of marsh land during the season.

During 1947 it was estimated that a million Georgians enjoyed the facilities of the Parks already being operated by the State. With the opening of Jekyll, this figure is expected to increase to a million and a half annually as Jekyll alone is expected to attract a half million tourists, sight-seers and vacationists each year. Because of the wide publicity it has received, and its ideal year-round climate (temperature there is about 70 to 80 degrees year round) Jekyll will be one of Georgia's top-notch tourist attractions when fully developed. Approximately five miles of the Island's beautiful nine-mile beach will be set aside for youth organizations which will build group camps.

Other interesting Park sites recently acquired by the state are Possum Poke, picturesque home of former Governor Charles S. Osborn of Michigan which is located near Sylvester in Worth County and the Veterans Memorial Park at Lake Blackshear near Cordele. Both parks are outright gifts to the State of Georgia. Governor Osborn recently deeded his estate of 15 acres to the state and the commissioners of Crisp County gave the State a 1,000 acre tract on Lake Blackshear last fall for the site of a veterans memorial park, which is now under development.

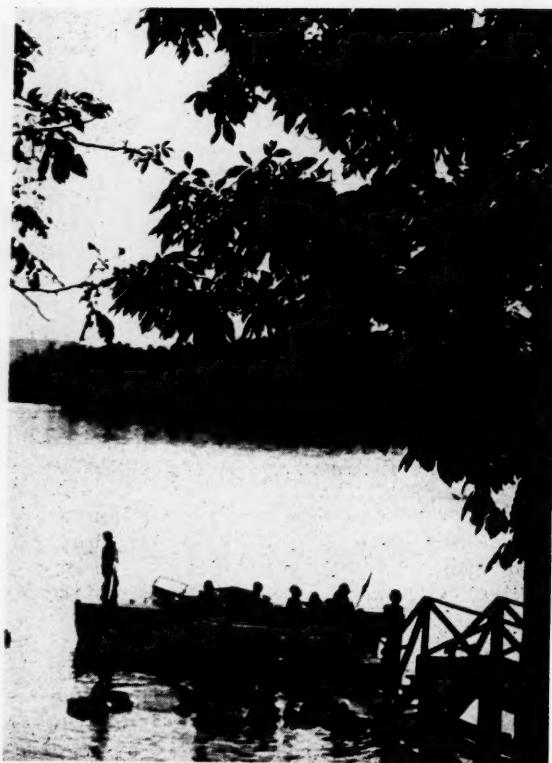
But for many, Georgia's real lure lies not in the historic attractions or in its scenic beauty but in the



Fishermen display a good catch. Georgia streams abound in bass, trout, spot and other fish which delight the angler.



For hunters, game birds are plentiful in Georgia. The southwest section of the state is known as the quail center of the world.



Left—Boating on a Georgia lake.

vast forests and wilderness areas, where the varied and abundant wildlife afford a virtual Paradise for hunters and fishermen.

The angler visiting Blackbeard island, one of the Golden Isles of Quale off the Georgia Coast, will find streams filled with marauding sea bass, and the insular haven, with its growth of semitropical plants, offers a variety of wild game, including Virginia white-tailed deer and fox squirrels.

Between the outer islands and the Georgia coast is a million-acre marsh, which, interlaced with small isles and streams, offers a variety of sports. It abounds in raccoon and mink and game birds such as the clapper rail and the marsh hen.

Ending abruptly at the Georgia coast the marsh-lands give way to unbroken reaches of forest land. These pine-studded woods, dotted with bays and swamps, are the center of the choice deer and turkey hunting in the state. Many of the counties of this coastal hinterland are more than 90 per cent timbered, providing an excellent range for wildlife.

Towards the South, along the Altamaha River, lies the Altamaha swamp, seven miles wide and almost seventy miles long. A magnificent swamp, the

Altamaha is a locale for excellent deer and turkey shooting. Since some parts of this swamp are still virtually unexplored, it is one of the few places in the state where the average hunter is advised against hunting alone.

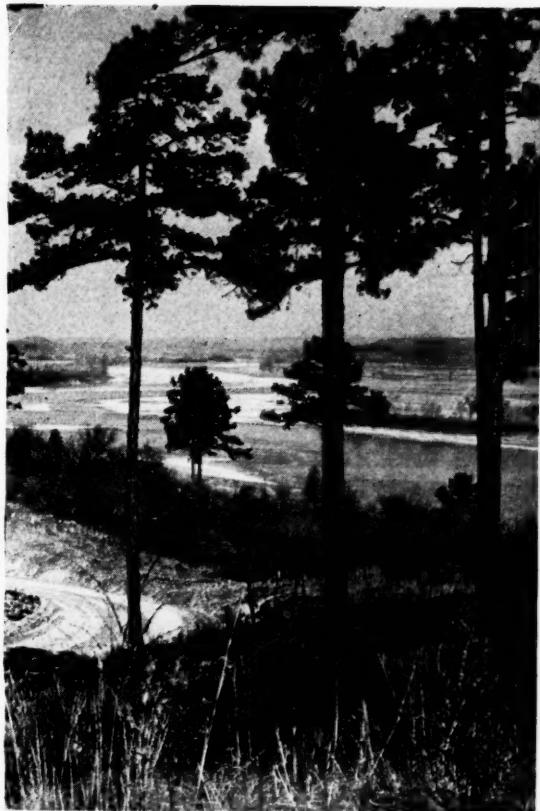
To the south, the great Okefenokee Swamp embraces some of the best fishing waters in the nation, and also attracts the largest winter concentration of waterfowl found in the state. Okefenokee, called "Land of the Trembling Earth" by early Indian tribes, is the headwaters of the romantic Suwanee River, its black water lakes, flower-spangled prairies and forested islands covering 600 square miles of "lost world." The swamp park is open to tourists every day in the year.

The swamp, a national park leased to the Ware County and Waycross Chamber of Commerce, was in fact established as a migratory waterfowl refuge. It has been beneficial to other wild-life as well, and alligators and black bears are abundant. The state's best duck hunting lies between the Savannah River Refuge and the Okefenokee.

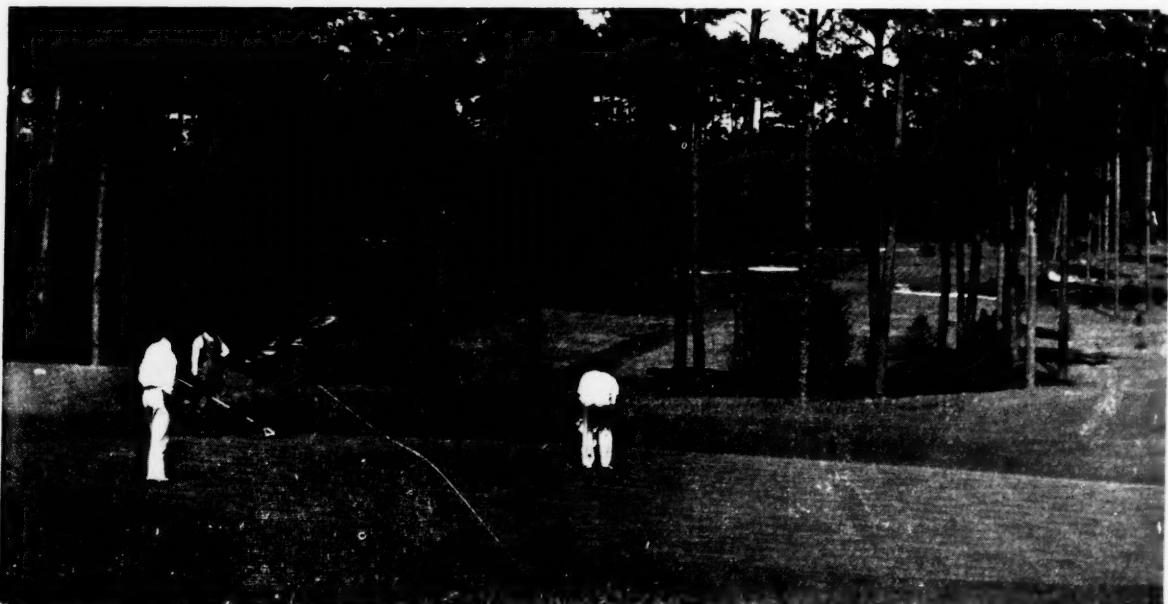
In the southwest corner of the state are lands so fabulously wealthy game birds that it is known as the quail center of the world. In this area are extensive plantations developed for quail, dove and wild turkey shooting. In addition, there is the other usual game such as deer, squirrels and waterfowl.

Generally, quail are found throughout Georgia but wild turkeys are confined to the plantations and big swamps of the south and to the mountains. The best dove hunting is found along the coastal plain below the center of the state.

There are countless good fishing sites on the power lakes and ponds scattered throughout middle Georgia. In the central counties, deer had once been



The scenic beauty of Georgia's Piedmont section is popular with tourists who prefer the mountains at vacation time. In this area—the southern end of the Blue Ridge chain—peaks reach upward nearly 5,000 feet.



Above is the famous "Bobby Jones" million dollar golf course at Augusta. To the course each year, come the nation's leading professional golfers to play in the invitational Master's Tournament.



Above is a section of the Crane home, one of some twenty such mansions on beautiful Jekyll Island. To attract a greater volume of tourists, Jekyll was recently purchased by the state for use as a state park.

planted bringing the state-wide herd of today.

For Georgians and visitors to the mountain of the state, the lakes there guarantee a good catch of bass, bream, or crappie. Mountain creeks and rivers annually furnish more than half a million brook, brown, and rainbow trout for the angler, while bears, squirrels, ruffed grouse, wild turkeys, and deer cover the mountain ridges.

The first cooperative game management area between a national forest and state game department were set up on the Chattahoochee, Georgia's only national forest. One hundred and fifty thousand acres in five tracts were set aside in strategic locations for development and wise use of a valuable resource. State rangers patrol them night and day, and this careful cultivation and protection of game resources has been an important factor in bringing back the deer herds and the bear.

In the fall these cooperative units are the scene of organized buck deer hunts and throughout the spring and summer there is regulated trout fishing. Also, they provide the only organized archery hunts for buck deer in the state.

Aside from the pleasure offered by its forests, streams, and game areas, Georgia can boast of other unusually fine outlets for recreation. The sports program offered by the state holds the attention of hundreds of thousands annually. Football teams of the University of Georgia and Georgia Tech have in recent years been among the nation's best. Each Saturday afternoon during the fall, thousands file into Sanford Field at Athens or Grant Field at Atlanta

to watch Georgia teams in action against outstanding sectional and intersectional rivals.

Georgia cities are well represented in baseball with leagues extending from the Atlanta entry in the Class AA Southern Association through Moultrie of the Class D Georgia-Florida League. High School and College athletic programs embracing practically all events furnish Georgians with a wide menu of spectator sports.

For the sightseer, the towering geologic miracle, Stone Mountain, just outside of Atlanta, draws visitors from all over the nation who come to view this unusual quirk of nature.

In the northwest section of the state, at Toccoa, is located one of the state's two unique waterfalls. Toccoa Falls drops from a height greater than that of the famous Niagara Falls in New York, although the breadth of the fall is on a much smaller scale.

From Toccoa, the drive west to the Amicola Falls goes through the state's most impressive mountainous region. Peaks in this area soar to almost 5,000 feet. Amicola Falls, located a few miles west of Dahlonega, the state's gold mining center, is more than 700 feet high.

Generally, the state has alluring facilities for the diversion and recreation of its citizens and out-of-state visitors. And it is believed that substantial progress is being made towards the eventual achievement of the goal of \$246 million annually from tourist trade. The Agriculture and Industrial Development Board estimates that in 1948 tourists will spend approximately \$105 million in Georgia.



Journey of a Word

Stranger than any Jules Verne fiction is the trip your voice takes by telephone. It spans the continent in one-twelfth of a second — over a private speedway with green traffic lights all the way.

Your voice is changed into electrical waves so that it can travel over the wires. Some waves travel too fast, and have to be slowed down, so others

can keep pace. Waves get tired, and electronic amplifiers give them new energy to speed them on.

All arrive at journey's end on split-second schedule and out steps your voice — changed back into words again. The wonder of it is that the words sound like you and are you — with your own tone and mood and personality.

Bell Telephone Laboratories design, improve and fit together the millions of intricate parts that make possible the journey of your words. It is a job that never ends.

It is this constant work of improvement that helps the Bell System give you the best and the most economical telephone service in the world.

BELL TELEPHONE SYSTEM



To Make or To Purchase?

By Paul T. Norton, Jr.

Associate Editor

This is the first of three articles by Mr. Norton on the question of whether manufacturers should make or purchase certain articles. Subcontracting and distribution will be discussed in the June and July issues.

A MANUFACTURER often must decide whether certain parts are to be made in his own factory or to be purchased from an outside supplier.

Long a serious problem, it is becoming even more difficult because modern competition often demands a manufacturing efficiency which can be obtained only by a high degree of both mechanization and specialization. Fortunately, there are many manufacturers with excellent war-built physical facilities and production know how who are only too ready to compete for the privilege of making certain parts which the average manufacturer has been accustomed to make in his own factory.

This article will suggest certain general factors which may well be considered by those manufacturers who are uncertain as to whether various articles should be made or be purchased, and for whom the problem is not of sufficient importance to justify turning it over to specialists.

The Problem

This article will discuss the problem from the viewpoint of the manufacturer who must decide either to make or to purchase. It is evident that the problem is of great importance also to that other manufacturer who will make and sell the part, if he can persuade the prospective buyer that it is more economical to buy than to make. That aspect of the problem will be discussed in a second article to appear in June.

This article and the one to follow in June refer to somewhat different aspects of a rather similar problem. In the July issue, a third article will discuss the factors which should be considered when deciding whether to attempt to sell a product to a wide variety of customers or to concentrate on selling to only a few customers, or even to a single customer.

This problem is of particular importance to manufacturers who got their start as subcontractors during the late war and who have neither a complete selling organization, nor sufficient work-

ing capital to finance a general selling campaign with the resulting large amount of capital tied up in accounts receivable. The problem is also important to those companies who were forced to abandon their regular products during the war and who are undecided as to whether it is advisable to return to their prewar policy of general distribution of their products.

When considering the desirability of concentrating on selling a product to a limited group, or to a single customer, it should be remembered that many a small manufacturer has prospered while making specialized parts for a single large company, while other manufacturers have found the practice a very dangerous and undesirable one after years of what had seemed to be very profitable business of this kind.

Factors Favoring Manufacture

Some factors favor the manufacture of an article while others favor its purchase. Some factors are clear-cut in that they always favor one or the other of the two policies, while other factors are less definite in their effect and under certain conditions may favor either of the two policies.

Among the reasons why manufacturers tend to make rather than to purchase an article are the following:

1. Better control of quality.
2. Greater assurance of getting material when needed.
3. Smaller inventory by reducing time between placing of order and receipt of goods, also in some cases by reducing size of production lot.
4. Quantities may not be sufficiently great to make business attractive to outside suppliers.
5. More economical to continue to use equipment which has little or no realizable value for any other purpose.
6. Opportunity to distribute general indirect overhead expense over a larger production.
7. Avoidance of possible exorbitant prices through independence of outside

suppliers.

8. Elimination of the profit and some of the indirect costs of the outside supplier.

Factors Examined

A cursory examination of the factors just listed makes them seem more persuasive than some of them really are when full consideration is given to all of the implications which are involved. For example, it is not always true that a manufacturer can secure better quality by making an article himself than by purchasing it. This is something which should be given most careful attention when quality is of great importance. There are many instances where outside specialists in certain fields can produce articles of higher quality than is possible in the shop of a manufacturer who merely uses some of the particular articles in the assembly of his own product.

It is generally true that a manufacturer will have greater assurance of supply when manufacturing an article himself. If the need is sufficiently urgent a manufacturer can reschedule his own production so as to favor any particular order and thus complete its manufacture at the earliest possible moment. This can obviously not be done as well by an independent supplier who must consider the needs of all of his customers. In addition, if the distance between the manufacturer and the independent supplier is great, there may be delays in transit between the two plants.

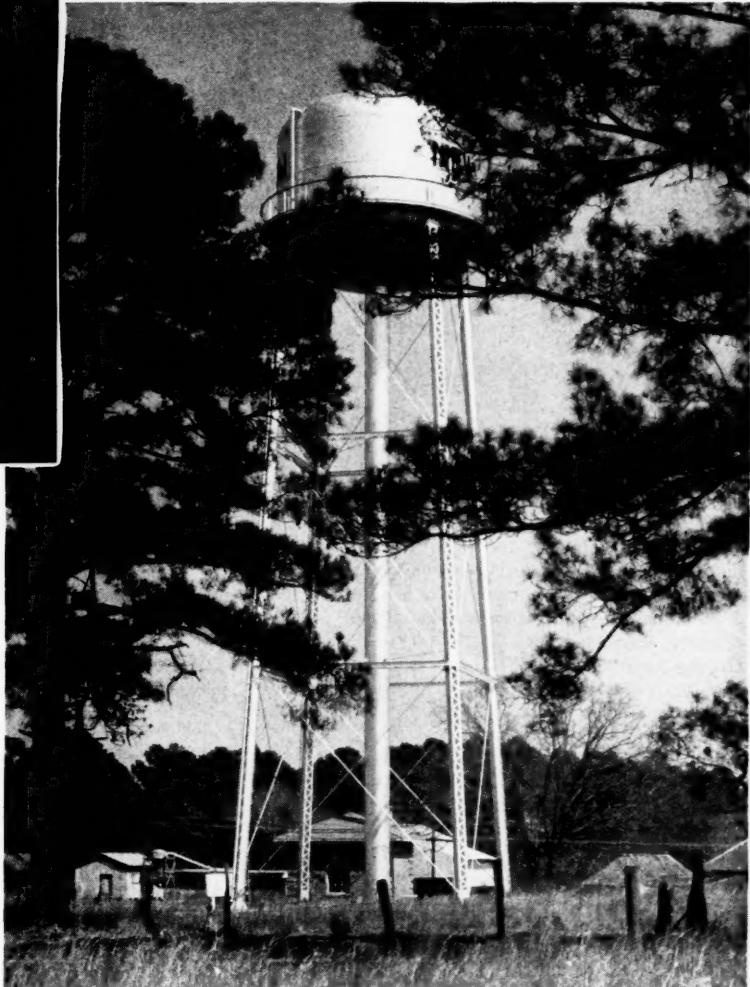
However, even this factor may not always favor making the article. The writer knows of several cases where a manufacturer experienced serious delays in producing important articles merely because of breakdowns in his only means of production, which delays would probably not have occurred in the plants of suppliers who had alternative methods of production.

There can be no doubt that it is often possible to reduce process inventories through manufacture of an article which

(Continued on page 164)

**Horton
Elevated
Tank**
in a
Georgia Town

**CUTS
POWER
COSTS**
•
**MAINTAINS
UNIFORM
PRESSURE**

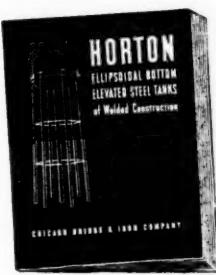


NINE years ago the town of Newton, Georgia, installed the 60,000-gal. Horton elevated tank shown above to maintain gravity pressure in its water system. This modern, streamline structure is still operating just as efficiently as the day it was built—and will continue to do so for many years to come.

The water supply at Newton is taken from a well and all pumping is done by electricity. The electric rate is relatively high—5c per kilowatt hour—consequently it is much more economical to operate the pump until the tank is full and then shut it down than it would be to

pump direct. The tank maintains gravity pressure in the mains when the pump is not operating.

If you are concerned with the planning of water distribution systems, it will pay you to send for the new booklet describing the advantages of gravity pressure in municipal and industrial systems. Address our nearest office for your copy of this booklet.



CHICAGO BRIDGE & IRON COMPANY

Atlanta 3 2145 Healey Building
Birmingham 1 1530 North Fiftieth Street
Houston 2 2114 National Standard Building
Tulsa 3 1611 Hunt Building
New York 6 313-365 Broadway Building
Cleveland 15 2216 Guildhall Building

Chicago 4 2106 McCormick Building
San Francisco 11 1240-22 Battery Street Building
Philadelphia 3 1619-1700 Walnut Street Building
Los Angeles 14 1417 Wm. Fox Building
Havana 26 402 Abreu Building
Detroit 26 1510 Lafayette Building

Plants in BIRMINGHAM, CHICAGO, SALT LAKE CITY and GREENVILLE, PENNSYLVANIA

South's Post-war Activity Reflects Accelerated Progress

by R. Lisle Gould

*Executive Vice President
Manufacturers Record*

PERHAPS too much has been said already about the South's great natural advantages, her vast resources which surpass, in extent and variety combined, those of any equal area known on earth, her gentle climate, her fertile soil, her forests and waterways. Perhaps we should not mention her great expanse of sea-coast which is equal to two-thirds of the nation's shoreline, with its protected, friendly harbors pointing the way to expanding world trade and better relations abroad in peaceful commerce. Perhaps we should refrain from pointing out that the South produces all of the country's sulphur, 98% of the bauxite, 95% of the phosphate rock, 72% of the natural gas, 63% of the crude petroleum, 50% of the bituminous coal, and 48% of all the mineral wealth produced in the United States.

Perhaps we should only dwell on some of our better-known deficiencies, well-publicized, periodically, by even some of our own well-meaning native sons, and always gleefully chewed over by self-appointed critics elsewhere who hope to make a reputation for themselves through sensational journalism. Even a President of the United States once labeled this part of the country "The Nation's Economic Problem No. 1," a sentiment quickly echoed by a "new look" member of his cabinet who thought she discovered that Southerners do not wear shoes!

Kidnapping?

Of course, when a New England lieutenant governor talks about "Bilbo Belt banjo strummers" and "Dixie Claghorns" and accuses the South of "kidnapping" the Massachusetts' textile industry (he apologized later), he only reveals that he doesn't know that as early as 1910, Southern textile supremacy was already an accomplished fact, and that any hope of New England's ability to compete successfully with the South in the manufacture of cotton goods is now forever lost.

Few men contributing to the South's development appear to have much in common with comic-strip Senator Claghorn. But in making this comparison, the Mas-

sachusetts' lieutenant governor unwittingly went much further in his tribute than he probably intended. If the South can progress as far as it has under such inept and benighted leadership, how great must its future be!

Emphasizes Progress

For the past sixty-six years the MANUFACTURERS RECORD has tried to stimulate the South's industrial development by pointing out the good things that have been accomplished here, and to emphasize progress rather than deficiencies and backwardness. We do not feel that the South has been developed at the expense of other parts of the country, but rather we feel as the Honorable William D. Kelly of Pennsylvania did more than fifty years ago. He was known as "the father of the House of Representatives" and was sometimes called "Pig Iron" Kelly. After a trip through the South in the early 1880's, he wrote for the MANUFACTURERS RECORD a number of broad, far-seeing letters, and in one of these to Richard H. Edmonds, our first great editor, he said, "The development of the South means the enrichment of the nation." That statement appeared under our masthead for many, many years and still does in the slightly revised form, "What Enriches the South Enriches the Nation." The thought is the same.

A textile mill built in the South, a chemical plant, an oil refinery, a plant to manufacture newsprint, any plant located in the South because of more efficient operation, contributes to the nation's upbuilding and not to the detriment of any other section. It is true that some plants have been moved from other parts of the country into the South, including a few textile mills from New England. But by no means was any major part of the more than 55,000 manufacturing establishments in the sixteen Southern states transplanted from elsewhere.

There is no thought here to ignore obvious defects and shortcomings. The only question is one of emphasis. What good does it do to write a book, or an article, or

to make a speech dwelling solely on the seamy side, to stress only the lower per capita income, the relatively smaller amount spent on public education, the erosion of our soil, the wasteful burning of our forest lands, the evils of sharecropping, our prodigal waste of nature's lavish gifts?

It doesn't do, of course, to ignore these things or to hold our noses as we pass them by, but what good does it do, what constructive purpose is served by trying to picture the South as one long "tobacco road"?

Generalizing on one particular thing always leads to false conclusions. It would be as accurate to describe New York City from the picture to be seen from the window of a New York Central train on its way to Albany. Or to say that Pittsburgh is a failure as a steel-producing center because of living conditions in East Liberty. Or to say that all of Chicago is contained in the smell of its stockyards.

Of course, these things are undesirable and they should be corrected, but because of them, are we right in concluding that our way of life is a failure? We have no patience with such good intentions which only pave the road to a state of discontent and frustration. We live in a fair land, abundantly blessed by nature, rich in both natural and human resources. And a great work has been done in turning these blessings to good account.

Since ante bellum days, there have been, generally, five great, forward, basic industrial movements in the South. First came textiles. By 1930 this section had more than half of the cotton mill spindles of the country, and 67% of the cotton goods' output of the United States was produced in Southern mills. This movement in textiles has been a steady one over a period of more than fifty years and in many important respects, is still far from finished.

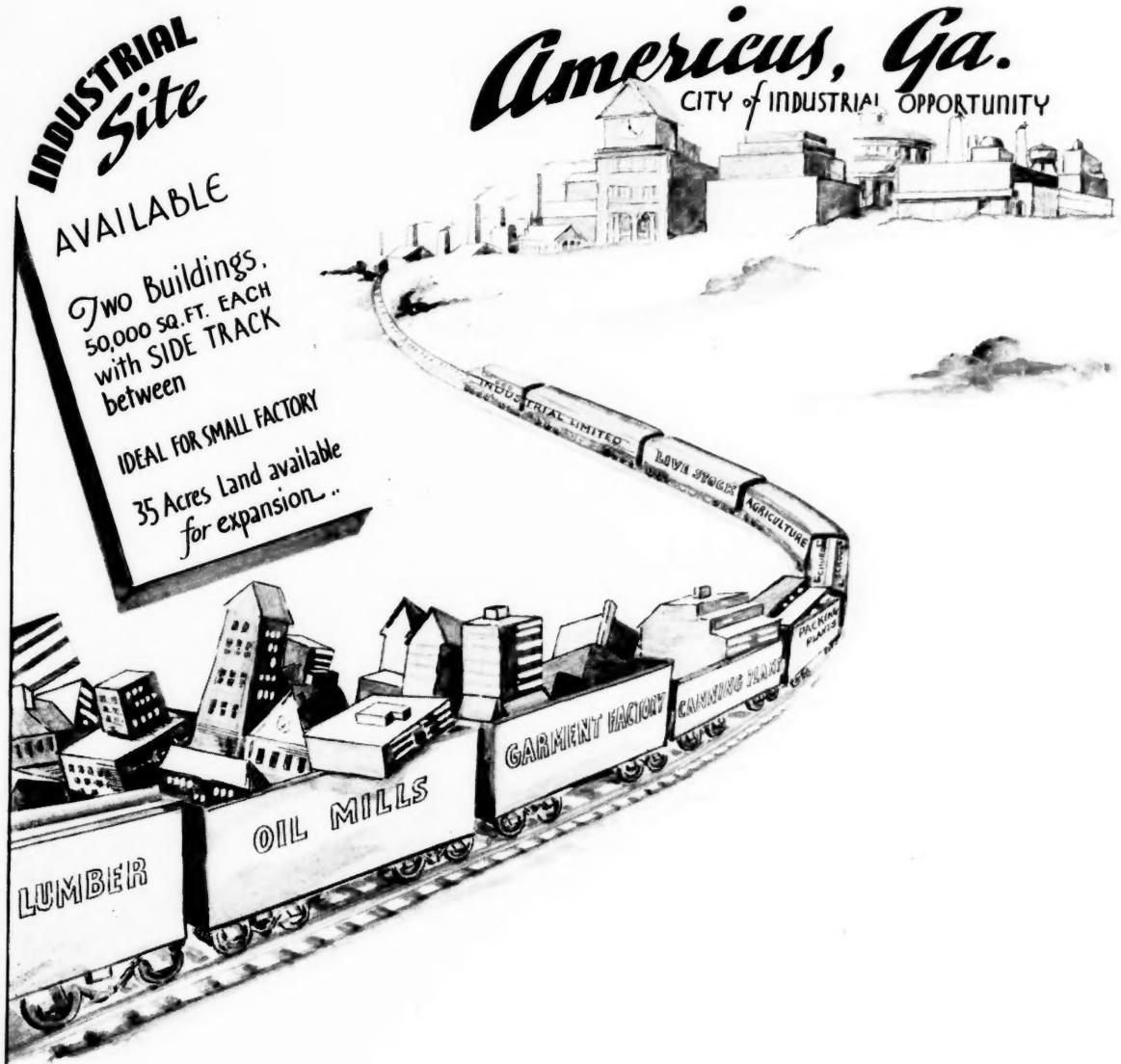
Important Development

Another of the great developments was the establishment of the iron and steel industry in Birmingham, started at a time when many steel experts said it was heresy to think that good steel could be made any place in the United States outside of Pittsburgh. The great Birmingham steel mills, Bethlehem's mammoth undertaking at Sparrows Point which is the world's largest steel plant on tidewater, and now the Lone Star and Daingerfield enterprises in Texas give a booming answer in placing Iron and Steel sixth of all Southern manufacturing groups, in order of output value, with a total of 1.3 billion dollars in 1946 or 67% higher than in 1939. In spite of this impressive showing, there is every reason to believe that the period of greatest growth in Iron and Steel is yet to come.

(Continued on page 168)

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AMERICUS & SUMTER COUNTY
Chamber of Commerce
Americus, Ga.

Southerners At Work

World Trade Conference Convenes in New Orleans

Two weeks ago (April 15-16) leaders in the foreign trade field gathered in New Orleans for the Third Annual Mississippi Valley world trade conference, a meeting which was expected to be, and which was, the most successful of its type ever held in the South. In addition to the business sessions of the conference, which were held on such subjects as exports, international banking, world trade, promotion and advertising, imports, transportation and freight forwarding and foreign trade zones, the featured speakers included such nationally and internationally known personalities as Elmo Roper, public opinion analyst; Senator Henry Cabot Lodge of Massachusetts, and Panayiotis Kanelopoulos, former prime minister of Greece and leader of the National Union Party who declared that freedom-loving peoples all over the world are depending on the United States to save democracy from the evils of communism.

Executives of many large Mississippi Valley manufacturing firms and several

experts from the various departments of the federal government took part in the business sessions. Bankers, railroad, shipping and airline heads and foreign trade experts addressed groups in their specialties.



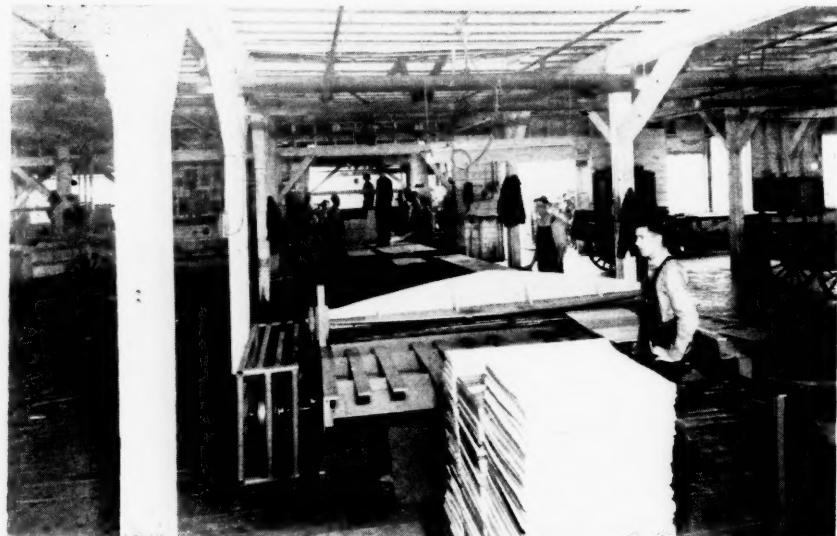
John L. Gillis

Of special interest to Southerners was an address given by John L. Gillis, Director of the Foreign Department for Mon-

santo Chemical Co., who spoke on the "Problems of Selling Versus Manufacturing in Latin American Markets."

Mr. Gillis discussed the external trade balance of the United States, the dollar shortage abroad and the present situation wherein ". . . We find ourselves competing with one another for dollar allocations from abroad rather than for export orders for our goods and services . . .". Mr. Gillis pointed out two roads that might be followed to alleviate the condition—either be content with the amount of business that can be developed under present conditions, or pass through the barriers that are in the way of increased operations, and set up local operations behind them. In this latter connection he briefly outlined the advantages and disadvantages following this course of action, and then indicated the economic climate for which we should look in countries where we are thinking of establishing local production.

Clarence S. Reinerth, president of the Export Managers Club of New Orleans, was chairman of the conference.



**PLAIN
ROTARY CUT
VENEERS**

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**FURNITURE
AND
RADIO
CABINETS
VENEERS**

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Specialize in Poplar

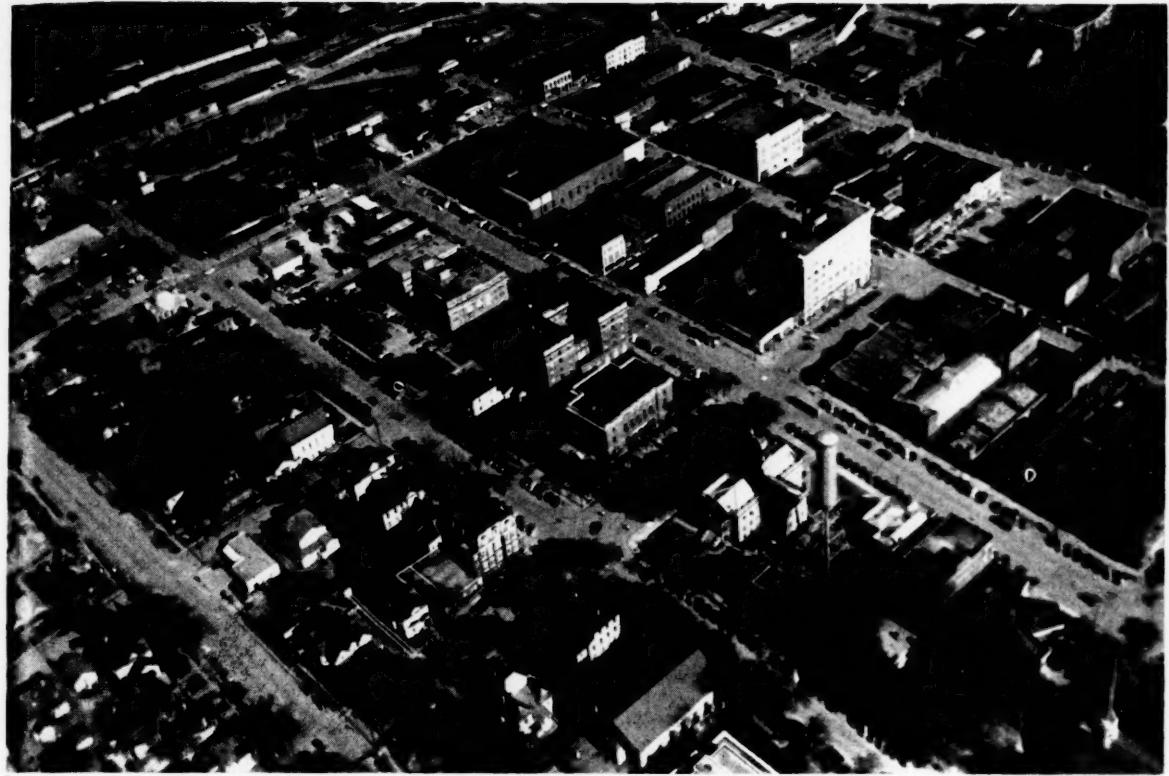
ALEXANDER WOOD PRODUCTS, INC.
MANUFACTURERS

ATHENS, GEORGIA

J. B. ALEXANDER

BOX 1132 — PHONE 1703

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ATHENS-GEORGIA

THE HOME OF THE UNIVERSITY OF GEORGIA — THE METROPOLIS OF NORTHEAST GEORGIA

Upward of 28,000 citizens, and more than 6,000 University Students make up the population of Athens.

The retail stores and service establishments are well stocked and amply manned to serve the trade area having a population of 180,000 people.

Athens is interested in increasing her Industrial Development, and the City and County governing bodies are offering wholehearted cooperation to Industry looking for a new home.

Add to this an ideal climate, ample transportation facilities by five railroads, three U. S. Highways with Bus, Express and Freight service and a modern airport; highly intelligent labor, primary electric power, gas and water mains throughout the City, and short hauls for fuel with pipe line service for fuel oil; and you have just about everything that Industry needs to be assured that *Industry can operate here at a PROFIT.*

For—

Health—

Wealth—

or Pleasure—

COME TO ATHENS



To—

Educate

Your

Children

COME TO ATHENS

We will cheerfully answer your request for statistics of facts relating to
AGRICULTURE, INDUSTRY, COMMERCE and EDUCATION.

ATHENS CHAMBER OF COMMERCE
ATHENS, GEORGIA

SOUTHERNERS



J. F. Brinley



Frank Stewart



Wallace Davis



C. C. Stineman



V. Van Demark

Davis Adds Four Key Men As Houston Agency Expands

In the Southwest the industrial boom was having its parallel in other lines. Houstonians for example were growing used to the eye-pleasing white building with the ivory-white tower. Many of them knew that it was the home of the Wallace Davis advertising company which in fifteen years had joined the ranks of the South's largest agencies. The business was, in fact, serving more than 100 clients and doing it with some of the razzle-dazzle employed by its northern

brothers—two airplanes are available for the convenience of the firm's more distant clients.

Heading the business is native Texan Wallace Davis who in his student days (University of Texas) had chucking books aside to take off on a seven month world cruise. To make his wanderlust pay off, he sold a syndicated column of his experiences earning enough to pay for the trip. Later, deciding that home was best, he settled down as a news and feature writer on the oil fields of the Southwest. He came to know the oil fields and the men running them. Oil men in fact put

the agency idea in his head. In 1932 a group of oil tool manufacturers looking for a way of getting the proper sales leverage into their advertising suggested to Davis that he open an agency. The idea seemed like a good one, so armed with a second-hand typewriter and a borrowed desk, Wallace Davis went into the advertising business.

Today, he can still say with pleasing candor: "There's a lot I don't know about advertising . . . but I'm smart enough to surround myself with some of the best advertising brains in the country."

Last month, Wallace Davis had made a

GROWN IN GEORGIA . . . TREATED IN GEORGIA!



For 40 years, Southern Wood Preserving Company has served the South with creosoted products, made from Georgia-grown wood. On those products, the name "Creo-Pine" is a pledge of accurate manufacture and rigid inspection from tree to finished product.

Creo-Pine Products

RAILROAD CROSSTIES
RAILROAD SWITCHTIES
BRIDGE TIMBERS
POWER & TELEPHONE POLES

SOUTHERN WOOD PRESERVING CO.
ATLANTA, GA.

Treating Plants:
East Point, Ga. Macon, Ga. Chattanooga, Tenn.





*No longer
can Industry hope
to serve the entire
United States from
any one point
however centrally
located.*

TIME was when you could locate in the center of your market, and satisfy the demands of your trade easily. But that day has gone. Hand-to-mouth buying has broken America into a group of major markets, each of which must be served from its logical, strategic center.

The South is one of these markets,—and an important one. Its people are prosperous. Their buying power has trebled during the past ten years. Their standards of living have increased accordingly. And your opportunity for volume business is proportionately greater.

But . . . not at long range!

Those who have been outstandingly successful in selling the South will tell you that big volume began when Atlanta became their Southern headquarters. This is Distribution City to the South. From here the rich territory may be most quickly and most efficiently reached, by men and merchandise.

Fifteen main lines of eight great railroad systems radiate from here to the whole South. Goods are delivered more swiftly from here by road, by rail, by air. Merchants have learned that turnover is better on goods from Atlanta

branches, because fill-in is quicker, and stocks can be kept at minimum. And branches pay accordingly.

The volume developed in the territory, the production economies found here, have encouraged manufacturers to establish branch plants in the Atlanta Industrial Area. Because labor is efficient, and raw materials available close by at low prices, production costs are lower here. Low taxes, low-cost power, ample water supply, building costs, climate—a host of factors contribute another big share to better profits. And these profits have built great plants out of small sales offices.

The facts as they apply to your specific problem will be gathered for you—without cost or obligation—by the Atlanta Industrial Bureau. In the strictest confidence this organization of experienced location specialists will check your requirements against the advantages here, and will frankly tell you whether or not you can make more money through an Atlanta location.

This service may mean thousands of dollars to your company in the next few years.

Write INDUSTRIAL BUREAU, CHAMBER OF COMMERCE
Chamber of Commerce Building

ATLANTA
Industrial Headquarters of the South



SOUTHERNERS

strong move towards just that. He announced that four crack advertising men had joined the firm. Director of Radio Advertising will be Frank H. Stewart, Jr., long-time radio man whose own radio productions company was being added to the Davis staff. Former New York adman J. F. Brinkley would be Director of Market Research. Cameron C. Stineman who had directed advertising for private business (Firestone, Marshall Field) would be Account Executive on Consumer Advertising. To handle the job of Art Director, Davis had brought back to the firm his one-time art expert, Vance Van Demark who had specialized in advertising art for 19 years.

Ryerson Announces Sales Appointment and Transfer

W. E. Falberg, for the past three years head of special steel sales at the Cleveland, Ohio, steel-service plant of Joseph T. Ryerson and Son, Inc., has been appointed manager of alloy and stainless sales at the company's plant in Chicago, Ill., effective April 1, 1948.

E. H. Bodenmann, formerly a sales representative of the stainless steel department of the Ryerson plant at Chicago, has been transferred to Cleveland, succeeding Falberg as manager of alloy and stainless sales.

Mathieson Chemical Names New District Sales Managers

A new southern sales area, with headquarters at New Orleans, and new district sales managers at New Orleans and Houston have been announced by D. W. Drummond, vice president-general manager of sales of Mathieson Chemical Corp. (for-

ber of the Sales Development and Technical Service Department, and, until his present appointment, specialized in technical service to the pulp and paper industry. He is a member of TAPPI and has served on the TAPPI subcommittee on pulp purification. As District Sales Manager for the New Orleans territory, he will make his headquarters in a branch office being established in the Queen and Crescent Bldg., 344 Camp St., New Orleans, La.

Mr. Boehm succeeds W. S. Hammond, recently deceased, as District Sales Manager of the Houston Sales District. During World War II, he served with the War Production Board as Assistant Chief of the Nitrogen Unit, Chemical Division, Washington, D. C. He has been with Mathieson since January, 1946. His headquarters are in the Second National Bank Bldg., Houston, Tex.



R. F. Boehm V. Woodside

merly The Mathieson Alkali Works). Vernon Woodside will be in charge of the New Orleans sales district and Roland F. Boehm will be in charge of the Houston sales district.

Mr. Woodside is a graduate of the New York College of Forestry and holds a B.S. degree in chemistry. He joined the Mathieson organization in 1936 as a mem-

Lowder to Head New Link-Belt Sales Office in Jacksonville

Link-Belt Co., Atlanta plant, announce that they have established a district sales office in Jacksonville, Fla., with headquarters at 137 E. Forsyth St.

Mr. Robert L. Lowder, formerly district sales engineer at the Atlanta plant, has been appointed district sales manager in charge of the new office.

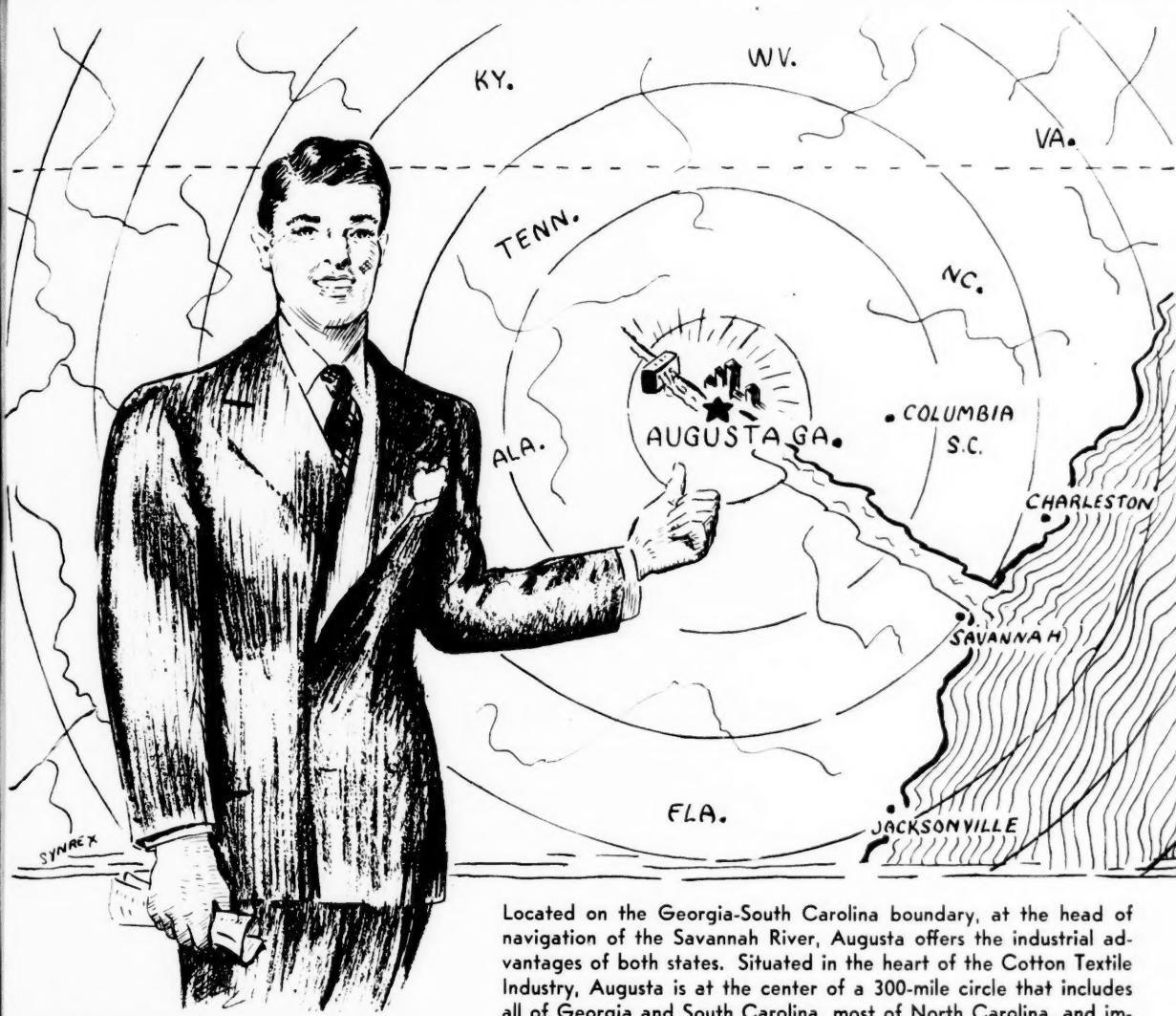
ALLSTATES CONSTRUCTORS

INCORPORATED

General Contractors

CLARK HILL DAM
Augusta, Ga.

BEST DISTRIBUTION POINT IN SOUTHEAST



CHECK AUGUSTA'S ADVANTAGES

- WATERWAY TO THE SEA
- FOUR MAJOR U.S. HIGHWAYS
- SIX RAILWAY NETWORKS
- CONNECTING AIRLINES TO ALL POINTS
- YEAR 'ROUND OUTDOOR RECREATION
- GRACIOUS LIVING FOR EXECUTIVES AND OTHER KEY PERSONNEL

Located on the Georgia-South Carolina boundary, at the head of navigation of the Savannah River, Augusta offers the industrial advantages of both states. Situated in the heart of the Cotton Textile Industry, Augusta is at the center of a 300-mile circle that includes all of Georgia and South Carolina, most of North Carolina, and important areas of Florida, Alabama, Tennessee, Kentucky and Virginia. Augusta may well lay claim to the title of "Best Distribution Point in the Southeast." Augusta's enviable location offers attractive prospects for single or related groups of factories. The Savannah River will soon have a 7-foot all year 'round channel from Augusta to the sea, which eventually will be increased to 12-feet, thus accommodating large scale tonnage. Augusta also has six (6) railroad networks which facilitates shipping to any part of the country. Four (4) national highways, constituting a twin-state network of paved roads, offer adequate truck transportation. Augusta is also on the airlines to all points and offers gracious living to executives. It is to your advantage to investigate the industrial advantages of Augusta and her trade area. Send today for the free, factual booklet and judge for yourself the potentialities of Augusta.

**INDUSTRIAL DEVELOPMENT DIVISION
CHAMBER OF COMMERCE AUGUSTA, GA.**

SOUTHERNERS

President Names D. W. Rentzel Civil Aeronautics Administrator

President Truman has nominated Delos Wilson Rentzel to be Civil Aeronautics Administrator. Mr. Rentzel is a graduate of Texas A and M College. A native Texan, his experience has been in radio communications. He was director of communications for American Airlines in 1943 when he resigned to set up Aeronautical Radio, Inc., and Aeronautical Radio de Mexico. He is president and member of the board of both organizations.

A private pilot, Mr. Rentzel has been a consultant to the Army and Navy on establishment of airways and communication systems for the armed forces.

He is married, has two sons and lives in Alexandria, Va.

Kirby Petroleum Announces Re-election of Three Officers

The Kirby Petroleum Co. has announced the re-election of George Sawtelle as president. John T. Scott and Ben Roshton were re-elected as vice president and treasurer, respectively.

Lumite Appoints McCaleb Supt. of Cornelia Mill

Kenneth V. McCaleb has been appointed superintendent of the Cornelia, Ga., plant of the Lumite Division, Chicopee Manufacturing Corp., it was announced by Harry H. Purvis, vice president in charge of manufacturing for the division.

He was formerly manager of the United Merchants Jacquard Upholstery Mill at Elberton, Ga., and previously superintendent of its mill at Paterson, N. J.

A graduate of the Philadelphia Textile School, Mr. McCaleb installed and operated the cost system at Onondaga Silk Co. in Easton, Pa., and later became production superintendent and jacquard de-

signer. Mr. McCaleb was plant superintendent of the Burlington Mills at Burlington, N. C., and served as superintendent of the Monument Mills at Housatonic, Mass.

The Cornelia mill produces Lumite screen cloth, woven upholstery and industrial fabrics.

Neil F. Ritchey Joins Reynolds Technical Service Department

Neil F. Ritchey has been named an engineer in the technical service department of the Reynolds Metals Co., Louisville 1, Ky., according to an announcement by D. P. Reynolds, vice-president.

Mr. Ritchey brings to the Reynolds organization several years' experience in metallurgy. The last few years he was with General Electric in Fort Wayne, Ind., where he was a metallurgical engineer in charge of non-ferrous metallurgy in the works laboratory. He was also a member of the inter-works metallurgical and standards committees. He devoted considerable study to the development and application of both ferrous and non-ferrous metals. Prior to his service with General Electric, he worked with the Wayne Knitting Mills in Fort Wayne as an organic dye chemist.

In his new position as a technical service engineer, Mr. Ritchey's experience will be made available to Reynolds customers.

Mr. Ritchey has assumed his responsibilities with headquarters at Reynolds plant 7, 2500 Third St., Louisville.

Major General Moore Joins Koppers' Shops Division

Major General Cecil R. Moore, who served for four years during World War II as chief engineer in the European Theater of Operations, has been named manager of the construction department,

Shops Division of Koppers Co., Inc., it was announced recently.

The appointment of General Moore was made by Walter F. Perkins, Vice President and General Manager of the Koppers' Shops Division. Mr. Perkins and General Moore have been closely associated during the past year while the latter has been director of the Department of Aviation, City of Baltimore. Mr. Perkins is the chairman of that department.

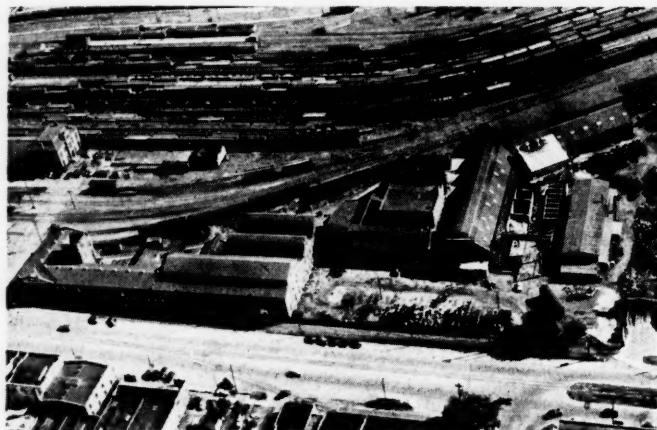
In his new position, General Moore will be responsible for directing construction of all gas apparatus and precipitators.

R. R. Millsap Appointed Temco Sales Representative

Appointment of R. R. Millsap of Fort Worth as Temco sales representative for the Swift airplane for the Western United States was announced recently by Leonard Larson, Swift sales director. Mr. Millsap will assume his new duties with Texas Engineering and Manufacturing Co. immediately, and Mr. Larson said further expansion of the Swift sales organization would lead to an early appointment of a representative for the Eastern part of the nation.

Both sales representatives will work directly under the Swift sales department at Temco in coordinating the sales and service activities of the approximately 50 Swift dealers in the United States.

Mr. Millsap, a native of Itasca, has had more than 20 years' experience in aviation. He formerly owned and operated Hampton Airport, now Clearview Airport, in Dallas for several years, and during the war was a North American Aviation (Dallas) technical representative with the Army Air Forces. Since the war he has been employed as sales manager for Southwest Aircraft, Inc.



OFFICES AND PLANT
MAIN OFFICE AND SALES DEPT., 600 TWELFTH ST., COLUMBUS, GEORGIA

GOLDENS' FOUNDRY & MACHINE CO.

Founded 1882

SERVING THE TEXTILE INDUSTRY IN THE SOUTHEASTERN STATES FOR OVER 65 YEARS IN THEIR REQUIREMENTS OF

TRANSMISSION MACHINERY,
GREY IRON CASTINGS
and OTHER ITEMS

TELEPHONE 3-5945

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CHOOSE COLUMBUS-

A PLANNED CITY — FOR YOUR NEW PLANT

In addition to excellent climate, reliable native-born labor, good transportation and communication facilities, natural gas, ample water and electric power supplies—Columbus, Georgia, offers you the *plus* advantages of a *planned city*—a positive sign of progressive foresight.

Wide, straight streets, beautiful parks,

splendid schools and churches, fine residential sections, excellent commercial and industrial areas—none of them “just happened” in Columbus. They were planned far in advance according to the recommendations made by leading engineers based on exhaustive studies.

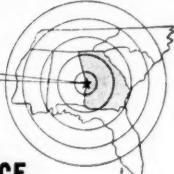
This planning is important to you. It means a more economical, better-managed government. It means better citizens, more civic interest. And it means better employees for your business.

Consider the cold facts and the *plus* advantages, and you are bound to choose Columbus. Let us furnish you with more complete information. Just drop us a line.

15 FACTS ABOUT COLUMBUS

- 98,797 metropolitan population
- 1947 bank clearings \$195,915,561
- Retail Sales 71 millions plus
- 126 industries
- 11 machine shops and foundries
- 14 lumber companies
- 11 printers and publishers
- 4 brick and pottery works
- 18 textile manufacturers
- 14 food processing plants
- 4 radio stations
- 2 daily newspapers
- 3 major railroads
- 2 airlines
- 21 public schools

COLUMBUS
THE HUB OF THE SOUTHEAST
GEORGIA
CHAMBER OF COMMERCE



Sound Credit -- Weapon for Production

by
Henry H. Heimann

*Executive Manager
National Association of Credit Men*

SOUND credit is a powerful weapon for production.

For a nation, and more particularly, a world, that cries loud for a multitude of goods, this assertion has possibly more meaning than ever before.

Irrespective of the causes of today's world problems, their solution will depend in some measure upon a sound credit program. Unsound credit, as evidenced by unsound currency, destroys all incentive to produce beyond needs for self-preservation. Poor money, which is another word for poor credit, effectively blocks the normal flow of goods except to provide one's own needs. Why should a worker, a farmer, or a man engaged in industry create a surplus which, when he seeks to dispose, finds the compensation he receives is of unstable value and without assurance that its purchasing power will be maintained for any length of time?

The various phases of credit might be classified as:

- A. International.
- B. National.
- C. State and Local.
- D. Banking and Investment.
- E. Manufacturing, Wholesaling and Jobbing.
- F. Consumer Credit.

It is essential that all of these different classifications of credit be soundly developed. To do so requires a start at the bottom, namely, in consumer credit. The manufacturing, wholesaling, jobbing and banking credit can largely influence the soundness of consumer credit. These two classifications of credit likewise exert great influence on all phases of credit.

All Phases

The wholesale, manufacturing, jobbing and banking credit will be discussed, particularly as to the problems and responsibilities of credit management in these fields.

Since the war, approximately one million new businesses have been organized. Statistics show that one-half of these busi-

nesses will not be in operation five years from now. In other words, failures are bound to increase. The modern credit executive must carefully appraise the management of these new businesses. The management factor is most important in the success of these new ventures. He must check to see whether heads of new concerns have had experience in a competitive peacetime era. Are they simply men with ambition who, due to the easy money situation, have been able to go into business, or are they men who have only had wartime business experience which may actually be detrimental as far as the development of sound business judgment is concerned.

It should be remembered that a credit manager today is not judged on the measure of his bad debt losses alone. Indeed, the best basis of approval of his value is the skill with which he can convert through sound credit council and advice, a marginal credit account into a sound financial customer. The modern credit executive assembles all the financial information he possibly can on his customer and then proceeds to build his customer.

Credit executives on the whole are not too alarmed about the prospect of the many failures they feel are bound to occur in this postwar era. They feel that proportionately these losses—total volume of business considered—will not constitute a business menace. They propose to use such vigilance as they can muster to avoid getting involved in these failures.

The credit executive realizes that the



MOSE GORDON LUMBER COMPANY

Not incorporated

MANUFACTURERS
SHORT LEAF PINE

DAY PHONE 165

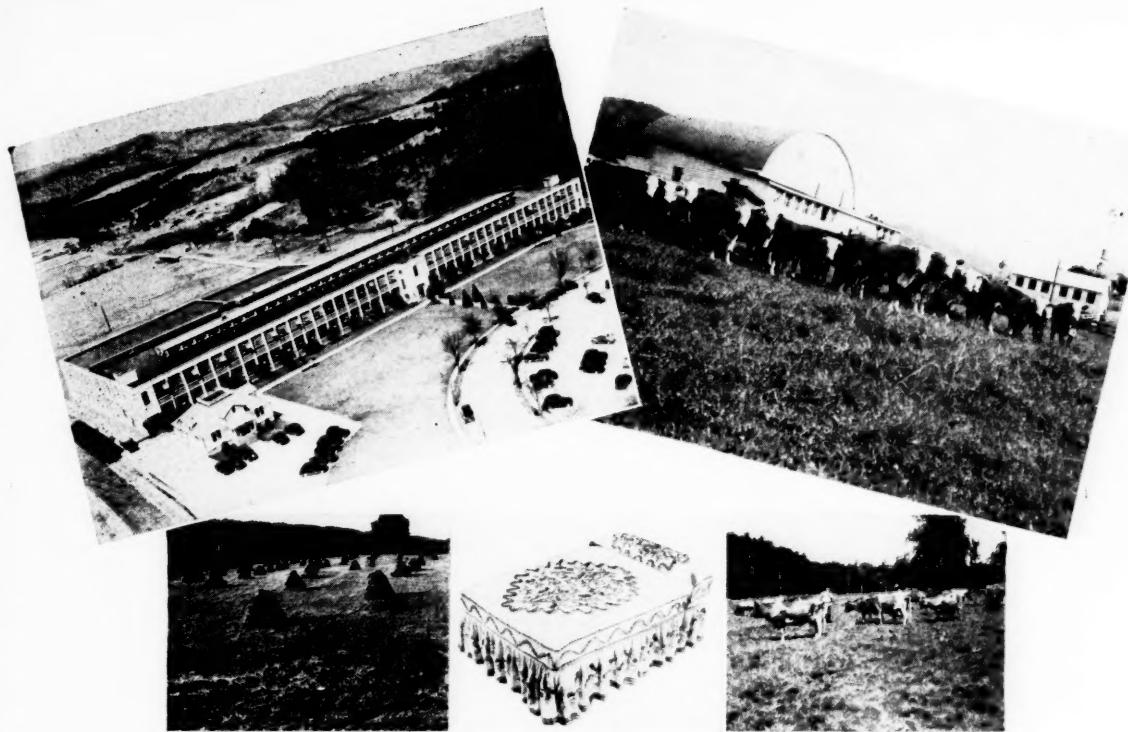
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DALTON, GEORGIA

The bedspread center of the World

WHERE INDUSTRIAL ROMANCE IS WRITING HISTORY

LOOKING AROUND

LOOKING at what Dalton has accomplished in building the "BEDSPREAD BOULEVARD" from Dalton to Chattanooga, with its group of chenille plants that are producing 75% of the nation's volume of spreads, robes and rugs, in a 125 mile radius with Dalton as its center, there has here come into being a notable Southern born, Southern natural, Southern concentrated industry.

In this atmosphere of native initiative, enterprise and progress, Dalton welcomes new and collateral industries; and to utilize its reserve assets in a plentiful supply of manpower, heavy industries will find here a logical location among cooperative people who have become "industry conscious."

LOOKING AHEAD

But, this "from rags to riches" romance grows at Dalton. Other fertile fields are being explored. Watch for refinements in colors, new designs, entirely new products like chenille toys, improvements in machinery, and production economies. This kind of industry employs many women.

For cooperation in locating your plant, write

DALTON JUNIOR CHAMBER OF COMMERCE
MARK W. MATTHEWS, PRESIDENT

D A L T O N G E O R G I A

present situation does call for a more conservative policy. By this is not meant a denial of credit except in any clearly deserving cases, but it means a much more constructive credit policy. Today's credit executive will check the inventories of his customer and evaluate the accounts receivable on his customer's balance sheet as carefully as he will review his current position. He is ready to give such advice as will insure stability of business. This may mean that some of his customers, if they accept his advice, may have less earnings, but it also means that much less of a gamble is involved.

The modern credit executive not only analyzes the trade possibilities in his territory and promptly reports his findings to the sales department of his company, but he also assumes that he is the right arm of the sales department. He aids the sales department in developing the most productive territory and in the procurement of the most attractive accounts.

The war has brought on one new responsibility for credit executives that undoubtedly will remain a part of their job in the years to come. Many people think of credit executives as being solely responsible for accounts receivable. This is and will continue to be their prime responsibility. But they have another equally important responsibility which they are beginning to discharge more and more, namely, the credit approval of sources of supply. Nothing is more important than to be certain of your sources of supply. Ability to deliver the goods in accordance

with respective contracts and needs must be known. Equally important is a sound understanding of the financial condition of the company from which purchases are made.

The credit manager today who does not develop a sound deferred payment or installment program for his company is asleep on the job. His company may never have dealt in this type of credit, and may never have to do so, but the time is not far off when merchandise will again be moving with credit in increasing amounts. If competition embarks on this type of credit, the company that is not prepared to immediately meet it will suffer. For this reason the alert credit manager has a plan of this kind up his sleeve ready to use at any time management believes it should be used, or when competition forces management to resort to it.

Management or Legislation

The general run of credit executives in the wholesale, manufacturing, and jobbing fields believe that credit control for the greater part must result from good credit management rather than from Federal legislation. They point out that if a credit executive makes a mistake he jeopardizes the capital of his company, and his company must stand a loss. They realize that with a diminishing profit return per dollar of sales, an assured development, a more conservative credit policy must be put into effect. Rising interest rates also have this effect. Finally, the credit executive, with respect to legislative control of credit, is

apt to discount credit recommendations going out of Washington. He rather regretfully says that the fiscal policies in effect in Washington have not been such as to engender a great degree of confidence in credit pronouncements from the Capital. He should like to feel otherwise but he is a very factual person.

The general credit executive today is not misled by statistical figures. When, for instance, he is told that consumer credit is now at an all-time high, he realizes that in terms of money so is everything else. He translates the dollar volume of the peak consumer credit in terms of the fifty-cent dollar, which gives him a better idea of the unit of goods involved. When he does this, he is not as frightened as are some of the theorists, although he understands vigilance is always required.

Credit executives today feel that credit education is of the utmost importance. Approximately 50 per cent of the junior credit executives of the nation in this postwar period are new in the work. The more experienced members of the profession are leaving no stone unturned to see that the apprenticeship training of these young men is thorough.

No deserving business need worry about not having adequate credit with which to operate. Irrespective of whether credit will tighten slightly or rigidly, there is an abundance of credit available for sound credit use. Unsound use of credit has never contributed anything but problems. The wise credit executive will avoid these pitfalls.

The KING LINE of Plows, Farm Tools, and Tractor Drawn Implements.



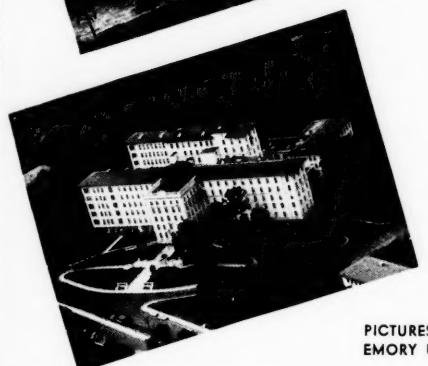
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DE KALB COUNTY, GEORGIA

A GOOD PLACE-- FOR YOUR BUSINESS OR FACTORY

—Situated within Metropolitan Atlanta, with a population of approximately 500,000 within a radius of 25 miles of the County seat,—Decatur, Georgia. Affording both an ample labor supply and a strong market.

—Traversed by three main railroads with numerous industrial sites within the rail network of the Atlanta area.

—Served by a County owned water system of ample capacity, a county-wide sewer system, adequate power facilities and natural gas.

—A balanced economy,—the largest dairy county in the State and a rapidly growing industrial development promoted by the DeKalb Industrial Development Board which has a unique plan for providing sites and buildings for new industries.

A GOOD PLACE-- FOR YOUR HOME

—More Churches and schools per capita than any other county in the southeast, good hospitals and libraries make attractive living conditions.

—Four nationally known institutions of higher learning: Emory University, Agnes Scott College, Oglethorpe University and Columbia Seminary, whose faculties and students make worthwhile neighbors.

—Unexcelled recreational facilities including numerous lakes, country clubs, seven championship golf courses affording year round outdoor recreation.

DE KALB COUNTY CHAMBER OF AGRICULTURE AND COMMERCE

MRS. W. GUY HUDSON, Executive Secretary,

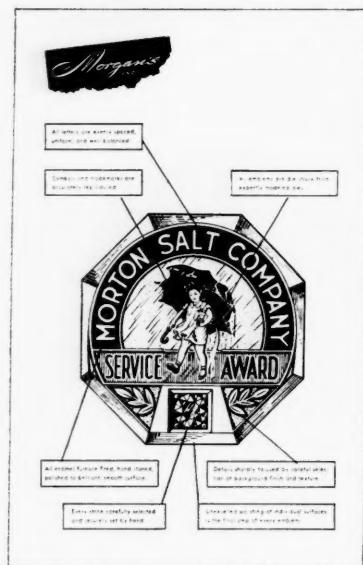
DECATUR, GEORGIA

PICTURES: FROM TOP DOWN—STONE MOUNTAIN—DAIRY HERD—WATER WORKS PLANT—
EMORY UNIVERSITY HOSPITAL—CONSOLIDATED QUARRIES—GENERAL MOTORS ASSEMBLY PLANT



New Products

Service Awards



Made By Morgan's

Service awards are tangible evidence of management's interest in its people. The value

of length of service programs is verified by the general adoption of them by industries, large and small, throughout the country. Morgan's, Inc., 32 W. Randolph St., Chicago 1, Ill., is one of the leading manufacturers of this type of emblem.

Morgan's emblems focus interest and attention where they should be centered. The motif for your service pin is of primary importance, and the design and quality of the finished product should be worthy of the organization which it represents. At Morgan's, no effort is spared to produce the most effective service awards.

Case Sealing Glue

Paisley Products, Inc., Chicago and New York, originators of many special packaging adhesives and adhesive application techniques, has announced that it is now in production on a shipping case sealing adhesive designed especially for automatic case sealing machines.

Designated Boxseal glue, the manufacturers claim that it will successfully and speedily seal the flaps of fourdrainer kraft, cylinder kraft and jute lined corrugated containers, as well as the solid fibre types. Although emphasis is placed upon Boxseal as an automatic machine sealing adhesive, it can also be applied by hand brushing. As such, it serves to hold shipping labels, express waybills, etc., to shipping boxes as well as its use as a flap sealing glue.

Protective Coating

Reardon Industries, 2837 Stanton Ave., Walnut Hills, Cincinnati 6, Ohio, announces the development of an elastic, acid resistant and water repellent coating for insulation.

The material is known as Tiet and fills a long existing need to make insulation resistant to acid and water. It is applied with a brush and easy to use.

Grease Fittings

Lincoln Engineering Co., 5701 Natural Bridge Ave., St. Louis 20, Mo., manufacturers of a complete line of lubricating equipment announce that improved Kleenseal Bullneck type grease fittings are now available in a wide



Bullneck Type Fitting

range of sizes and styles.

A few of the features of these grease fittings are:

- 1—Ball-in-head—Flush ball check keeps dirt out and grease in. Head can be wiped

PACOLET MANUFACTURING COMPANY

SHEETINGS DRILLS
Moleskins Herringbones

TWILLS
Print Cloth Specialties

Treasurer's Office

Pacolet

Mills No. 3 and 5
Mill No. 4
Mill No. 6

South Carolina

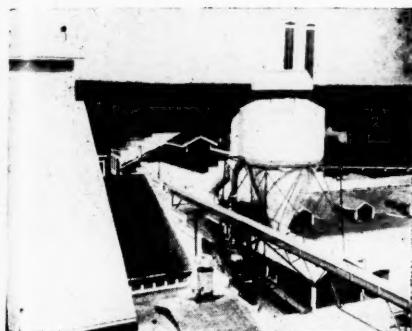
Pacolet, S. C.
New Holland, Ga.
Gainesville, Ga.

J. P. STEVENS COMPANY Selects

DUBLIN

FOR SITE OF AMERICA'S MOST MODERN WOOLEN MILL

It is not mere accident that one of America's foremost manufacturing concerns should select Dublin—in the cotton country—as a site for America's most modern woolen mill. The decision to locate here was made after many months of thorough investigation.



COTTON OIL MILL



WILKE SPRINGS—one of 6 natural springs at Dublin



WILD TURKEYS—raccoon, quails, ducks

Send for a Folder on Dublin— The ONLY CITY in Georgia that's "Always Dublin."

DUBLIN CHAMBER OF COMMERCE DUBLIN, GEORGIA



BEEF HERD IN PASTURE



U. S. NAVAL HOSPITAL

NEW PRODUCTS

- clean without forcing dirt into the fitting and into the bearing.
- 2-Sturdier construction—Enlarged neck size and projecting locking pad protect against damage and wear.
- 3-Special spring design—Spring will not compress to restrict flow of heaviest lubricants.
- 4-Large grease passage—The larger internal diameter permits greater flow of lubricant, requires less pressure to clear the fitting.

Lever Operated Hoist

Shaw-Box Crane & Hoist Division of Manning, Maxwell & Moore, Inc., Muskegon, Mich., announce the availability of a lever-operated hoist to be marketed under the trade name "Tugit." This tool is available in capacities of one and two tons.

Though this new tool for lifting and pulling is operated by a lever, it is an entirely new conception of a lever operated hoist, according to the manufacturer. Instead of effecting hook movement by a ratchet lever acting directly on a ratchet wheel integral with the lifting sprocket or pocket wheel, in the "Tugit" the lifting is effected by a lever acting on a gear train exactly the same as in hand or electrically operated hoists.

Industrial Vacuum Cleaner

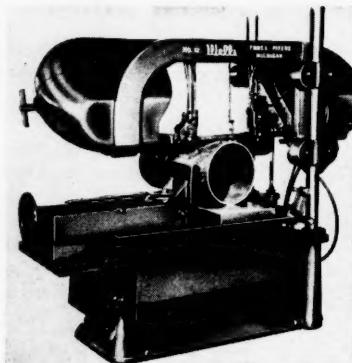
Continental Car-Na-Var Corp. of Brazil, Ind., has announced the addition of a self-cleaning industrial vacuum cleaner to its line of floor maintenance materials and equipment. It was shown publicly for the first time in February at the convention of the National Education Association at Atlantic City.

Called "The Eject-O-Vac" this vacuum cleaner is said to be revolutionary in that it is self-cleaning. There is no dust bag to empty or tank to dump. A water trap catches and saturates the dust in the 15-gallon tank. To empty the machine a bucket of clean water is sucked into the tank, a lever reversed and the dirty contents ejected through the intake hose into the bucket, a sink, a toilet stool or out the window. This process requires less than a minute and eliminates the greatest objection to conventional vacuum cleaners—removing the accumulated dirt.

Heavy Duty Saw

Wells Manufacturing Corp., Three Rivers, Michigan, has developed the Wells No. 12 heavy duty metal cutting band saw, with automatic cutting cycle and electrically controlled blade pressure, plus a Wells self-contained wet cutting system.

The system which is installed as an integral part of the saw includes a chip pan, fluid tank, centrifugal type pump motor unit, splash guards and protective screens. The chip pan is mounted firmly between bed and base.



Wells Band Saw

All working parts are readily accessible and a convenient valve permits adjustment of flow. Working capacity of the system is three gallons of fluid.

The manufacturers say that the system permits safe use of higher f.p.m. cutting speeds and increases blade efficiency. Further information may be obtained from the company.

Wheelabrator Tumblast

American Wheelabrator & Equipment Corp.,

Mishawaka, Ind., announces the development of a continuous Wheelabrator tumblast for high production blast cleaning.

By utilizing the unique combination of tumbling and longitudinal travel of the work, the continuous tumblast offers thorough cleaning and uninterrupted efficiency. No time is lost for starting, stopping, loading and unloading, as in the conventional type batch mill, since parts are fed into and discharged from the machine in a continuous flow.

This new machine, a number of which have already been installed in production operations, will be exhibited by American Wheelabrator & Equipment Corp. at the forthcoming Foundry Show in Philadelphia May 3.

Industrial Marking Inks

Neehi Protective Coatings, Inc., Ink Division, Lindenhurst, N. Y., announces two complete lines of fast-drying marking inks for machine or manual marking on any surface, including asphalt or creosoted surfaces.

Available in a wide range of colors, these machine inks have been developed especially for automatic, semi-automatic and manual marking devices, using rubber or steel type. Ink may be fed to the type by felt or metal rollers, or both.

Available in a wide range of colors for free hand marking, stenciling or spraying, the manual inks may be used with marking brush, stencil brush or spray gun. Can also be thinned to use with pen point for fine markings.

Rotary Drill Bit

Kennametal, Inc., Latrobe, Pa., has announced the development of a nine-inch diameter rotary drill bit for drilling overburden that contains hard shale, hard slate, limestone and some types of sand rock.

The bit has solid head construction, three drilling prongs, and cutting edges and faces of solid Kennametal inserts. The inserts are hard and strong and they enable the bit to withstand pressure, weight, and shock. The hard Kennametal points of the bit cut three different paths to form a cutting or breaking pattern of three concentric rings in the bottom of the hole. This feature enables the bit to cut hard material with ease and consequently to speed up the advance rate of the drill.



PLANTS AT JEFFERSON

THE JEFFERSON MILLS, INC.

MANUFACTURERS OF QUALITY COTTON FABRICS

JEFFERSON AND CRAWFORD, GA.

FULTON COUNTY joins Georgia's Progressive Communities in Inviting Industry!

FULTON County, in which Atlanta—State Capital—is situated, is one of the largest counties in the Southeast, embracing an estimated population of 495,000 people. Though it has many of the state's leading industries within its boundaries, more than half of its area is in farms.

Notwithstanding the fact that its homes and factories and farms spread over an area of 548 square miles, every section of the county secures the services that would be expected only in cities, with inevitably higher tax rates.

HERE ARE SOME OF FULTON COUNTY'S OUTSTANDING SERVICES:

Fulton County Sanitation Department serves every section of the county, with garbage collections made at regular weekly intervals.

Fulton County Health Department provides doctors and nurses for indigent persons, making daily visits to homes, if necessary. Complete clinic is provided.

Fulton County Mobile Dental Units are provided for both Whites and Colored, with complete laboratory equipment staffed by dental technicians.

Grady Hospital maintained by Fulton County serves indigent people of all colors and creeds who require hospital care.

Fulton County Welfare Department gives relief to all the indigent and homeless people of Fulton County, including grants for Old Age from the State. Fulton County also maintains an Alms House for white and colored, which includes hospital care and trained nurse in attendance.

Fulton County Bookmobile Units serve entire county, offering outstanding library service for all homes within city and county.

Fulton County Planning Commission passes on all subdivisions, maintains construction codes, develops slum clearance plans, solves traffic problems and cooperates in industrial development.

Public Works Program furnishes approximately \$125,000 for all street and road work within corporate limits of Atlanta as well as entire cost of all county work.

Fulton County Police Department maintains protection in every section of the county 24 hours daily with patrol service—automobile and motorcycle officers equipped with two-way radio apparatus.

Fulton County Scientific Crime Laboratory is one of the largest and most efficient in the South. Separate Finger-printing Laboratory is comparable to F.B.I. fingerprinting department.

Tax rate is unusually low due to thorough high efficiency in every county department.

To provide even greater efficiency the Commissioners of Roads and Revenues have recently adopted the County Manager System.

WHETHER YOU ARE A RESIDENT OF FULTON COUNTY AND COME HERE TO ESTABLISH A HOME, A BUSINESS OR A FACTORY, YOU WILL FIND THAT FULTON COUNTY OFFICIALS HAVE A FRIENDLY ATTITUDE AND THAT THEY WILL GIVE YOU THE FULLEST COOPERATION.

For Specific Information on Any Subject Relating to Your Plans to Locate Here, write

A. E. FULLER, County Manager

Atlanta, Georgia

COMMISSIONERS of ROADS and REVENUES

FULTON COUNTY

R. L. DOYAL
Chairman

JAS. H. ALDREDGE
Vice-Chairman

CHARLIE BROWN
I. GLOER HAILEY
THOMAS L. CAMP

A. E. FULLER
County Manager



W. S. NORTHCUTT
County Attorney

M. A. MacNEILL
County Treasurer

FRANK R. FLING
Clerk and Ex-Officio County Auditor

ROY W. BAKER
Purchasing Agent—Paymaster

NEW PRODUCTS

Hydraulic Coupling

Crane-Veyor Corp., 1240 S. Boyle Ave., Los Angeles, Calif., has recently announced manufacture of its "Fluiddrive" hydraulic coupling. This is a completely self-contained coupling, with simple impeller element and runner unit, mounted on its own integral ball bearings. Straight radial vanes make possible operation in either direction with equal efficiency. Low inertia of impeller and runner facilitates quick stops and reversing duty. The unit is statically and dynamically balanced, requires a minimum of mounting space and is as simple to install as a standard flexible coupling.

It is available in two sizes: 8.5 inch with capacity up to 5 horse power, and 9.5 inch with capacity up to 7 and one-half horse power.

Impact Press

Bellows Co., Akron, Ohio, manufacturers of Bellows "Controlled-Air Power" Devices, has announced the manufacture of the Bellows impact press, an air operated press of the medium heavy type for assembling, flanging, marking, forming, riveting and similar fabrications.

This press uses a Bellows BM-10 integral valve air motor for compression of a heavy die type spring from which the ram force is derived. Impact pressure can be regulated from a few ounces to the maximum of 6500 p.s.i. The downstroke of the air motor is used to compress the heavy die type spring which rests directly on the ram and is held in place by a spring loaded trigger mechanism. The spring is released automatically when the air motor piston rod is fully extended. The return stroke of the double-acting air motor returns the ram to starting position, where it is automatically locked in position by the trigger mechanism.

Welding Positioner

McQuay, Inc., Minneapolis manufacturer of air conditioning and commercial refrigeration equipment, has cut brazing time of cooling coils by the use of a welding positioner.

A feature of the P&H welding positioner is the addition of a self-leveling table on the top for the operator to stand on. This

permits him to braze all points without having to change position, as he can rotate and change the angle of tilt of the coil from the table. A push-button control is provided for all operations of the positioner, including power elevation of the table which makes it possible to position the operator as well as the work.

Warehouse Truck

Kut-Kwick Tool Corp., Brunswick, Ga., is now producing a materials handling truck possessing, according to the manufacturer,



Standard Kwick-Toter

many unique and desirable features.

The Standard Kwick-toter is of one-ton capacity, with a loading area of twenty-three and one-half square feet. The motive power is a 5 horsepower Wisconsin engine, mounted within the turret. A direct drive to the front

wheel provides a speed range of from two and one-half to ten miles per hour and permits a complete turn within its own length of approximately nine feet.

Currently, only regional distribution of this machine is being made. Plans call for national distribution as soon as full scale assembly line production can be perfected.

Molding Machine

Hydraulic Press Manufacturing Co., Mount Gilead, Ohio, recently developed a large capacity thermoplastic injection molding machine, capable of molding 40 ounces of acetate or 32 ounces of polystyrene per cycle. This machine was designed specifically to broaden the scope of plastics mass production to include such items as refrigerator parts, toilet seats, large radio cabinets, and similar large area parts. It molds all types of thermoplastic material.

This H-P-M 40-ounce injection machine is entirely automatic. Only the removal of the molded parts is required by the operator after they have been automatically ejected from the mold.

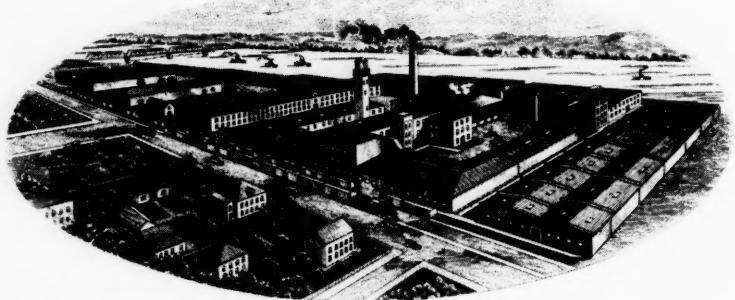
Self-aligning Idler

Continental Gin Co., Industrial division, Birmingham, Ala., has recently announced a patented self-aligning belt conveyor idler which it claims is a distinct improvement over existing types. It is made in designs suitable for troughed, flat and return belts, and the units are interchangeable with practically all standard idlers now on the market. Construction features include heavy duty Timken Bearings on the 1 1/4-inch swivel shaft, all grease pipes extended to one side for ease and safety of lubrication; hydraulic fittings as standard equipment, with others offered, if required.

Reinforced V-Belt

United States Rubber Co. has developed a nylon-reinforced V-belt said to have twice the strength and four times the average life of conventional V-belts.

The belt contains a series of tough nylon cords covered with a special synthetic rubber compound capable of withstanding the deteri-



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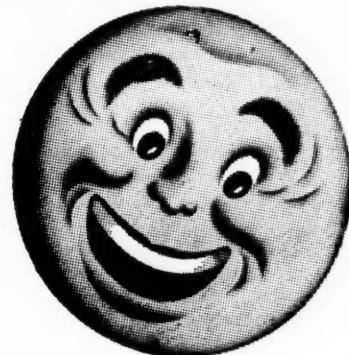
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THE SEABOARD — NORTH AND SOUTH

SINGLE TRACK — 26.5 MILES

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**GWINNETT COUNTY
CHAMBER OF COMMERCE**

OFFICE

LAWRENCEVILLE, GEORGIA

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Georgia's Richest Farm Land

NEW PRODUCTS

orating effects of heat and oil.

The belt is particularly recommended for power transmission on equipment subject to rough usage, such as grain harvesting and processing combines and railroad, mining, oil well and paper processing machinery. In addition to high tensile strength it is said to have great flexibility and a sufficient amount of elasticity to absorb shock.

Adjustable Bending Bar

Plumb Tool Company, Los Angeles 54, Calif., has introduced a bending bar with adjustable arms. This tool, designated No. 2135, eliminates the need for the usual assortment of solid bending bars, and it handles many jobs that would otherwise require a sledge hammer, pry bar, vise or press. It saves hours of time, according to the manufacturer, as well as barked shins, broken fingers and lost tempers.

Automotive shop uses for this bending bar include straightening brackets, braces, frame members, tie rods, steering arms, bumper parts, body pillars, door frames and hinges; aligning wheels, axles and exhaust pipes; removing spring clips and sprung shafting, and spreading braces, brackets and springs.

Farm uses include fence pulling, truck wheel and tractor part lifting, and straightening harrow and cultivator attachments, tool bar brackets, rods and frames.

Industrial uses include forming, straightening and assembling on many different types of jobs.

Portable Fire-Fighter

General Pacific Corp., 1051 East Washington Boulevard, Los Angeles, Calif., announces the availability of the KNAPSACK FIRE TANK, a portable unit for fire-fighting.

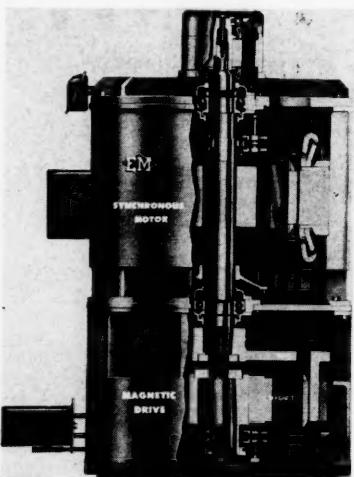
Ruggedly constructed, yet light in weight, the unit has detachable straps for easy carrying and a concave, form-fitting back. The tank which permits the operator free use of both hands, has an all brass telescope pump, with patented Safety Phlare to insure action. It directs a stream of water up to 50 feet. A double nozzle permits either fog or a straight stream of water.

The product is 13½ inches in height, 13¾ inches in width and has a shipping weight of approximately 10½ pounds.

Vertical Drive Unit

Electric Machinery Manufacturing Co., Minneapolis 13, Minn., announces that its "Vertical Synchronous Motor Magnetic Drive Unit" is now available. It is said to give smooth adjustable speed control for centrifugal pumps. The motor drives the ring of the magnetic drive at a constant speed, and the magnetic member of the magnetic drive mounted on a gear shift operates the pump at the speed required by the liquid level control.

The unit is said to offer smooth, wide-range



Drive Unit For Centrifugal Pumps

speed control, and precludes "hunting" and eliminates frequent motor stops and starts. Cutaway shows 250 horsepower 1200 rpm

vertical synchronous motor magnetic drive unit, which operates 200 rpm vertical sewerage pumps through a reduction gear.

Hacksaw Frame

Machine Rebuilding Co., 2738 Chene St., Detroit 7, Mich., has announced volume production of The Rigid Hacksaw Frame, originally precision-designed for their own machine shop to produce quality work and reduce excessive blade cost. The important feature of this frame is its strong construction, according to the manufacturer, obtained by one-piece steel tube back fitted into the precision-machined cast aluminum handle. This permits tightening the blade to high tension, which maintains true alignment without twisting the blade.

This frame does not collapse while blade is being installed. It is adjustable for 10 inch and 12 inch blades. All steel parts are cadmium plated; total weight is one pound six ounces.

Master Collet

Sheffer Collet Co., Traverse City, Mich., has announced a master collet in which the pads may be changed without removing the collet from the spindle. It is identified to the trade as the style "SM" master collet. The pads are positively held in place by means of a standard socket set screw that locks in a T-slot in the face of the collet.

Pads are interchangeable among all makes of machines of equal capacity. These collets are immediately available for all machines of one inch capacity or over.

Heater Unit "Package"

Gas Appliance Service, Inc., 1211 Webster Ave., Chicago 14, Ill., has announced availability of a midget utility air heater with improved design features as a "package" unit. In addition to the heater, the package includes fan, motor drive, safety devices and temperature controller.

The midget heater is low in cost, easy to install and simple to operate. Temperature controls of either the indicating or non-indicating type are furnished as desired. The safety devices are designed to shut off the gas supply in case of flames, power or fan failure.

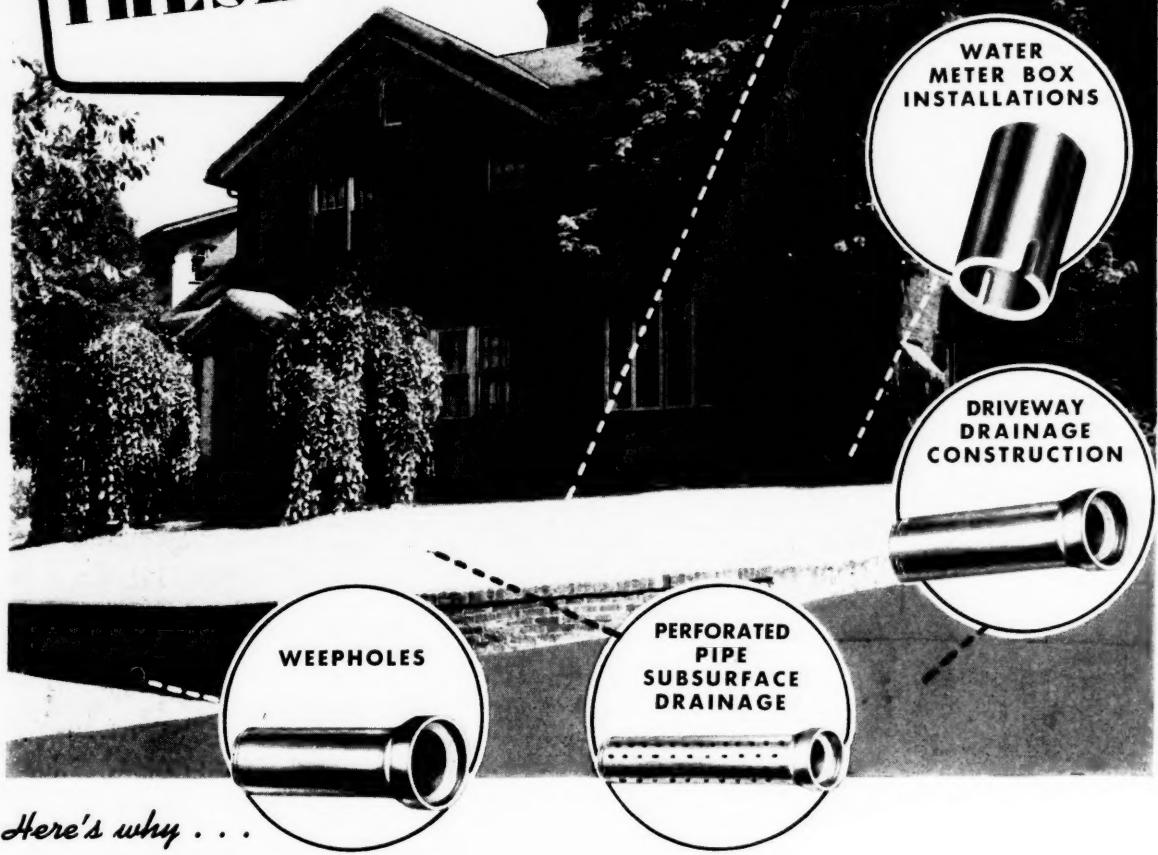
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OCONEE CLAY PIPE

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MILLEDGEVILLE
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MAY NINETEEN FORTY-EIGHT

157

NEW PRODUCTS

Automatic Center Punch

Vinco Products, 326 Bond St., Asbury Park, N.J., has placed on the market an automatic center punch for glass and hardened steels having a tip made of Carbonyl Cemented Carbide. This model, C-20, permits the routine marking of materials on which ordinary steel punches would become dull almost immediately, it is claimed.

The marker is four inches long, weighs one and one-half ounces and contains a spring-actuated hammer tripped by pressure on the punch. The small size of the tool makes it possible to mark materials in otherwise "inaccessible" places.

It is designed for the ready attachment of a wide variety of accessories including chisel points, nail-set points, hole cutting points, hammer points, and a self-centered attachment for the precision mounting of butt hinges. These accessories are available individually or in kits.

Topless Hydraulic Table

Lyon-Ralmond Corp., 4920 Madison St., Greene, N.Y., is offering its standard hydraulic elevating table without the regular top for special applications requiring an adjustable pedestal capable of handling 2,000 pound loads. An 8 inch by 10 inch bracket is furnished for mounting special tools and fixtures.

The platform elevates from 28 inches to 44 inches. It can be locked in one position or allowed to revolve freely.

Elevation is provided by a hydraulic cylinder and single speed hydraulic foot pump with pedal release.

Special Extension Bar

Scientific Research Co., Box 183, 1618 N. Vancouver Ave., Portland 12, Ore., has announced development of a radius extension bar created for the flash circle burner as an accessory. It is made of rigid cold-rolled steel, and the adapter is permanently fixed to the bar by induction silver soldering. The unit is then cadmium plated to prevent rust. An aluminum set screw with cut threads is set diagonally on the adapter, thereby creating a firmer hold on the joining bar.

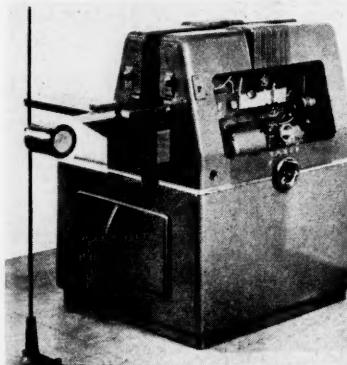
The special extension bar is quickly readied,

it is claimed, to cut circles up to 60 inches in diameter, which plus the 8 inch length of the torch radius bar equals 30 inches possible radius with the use of one extension bar. Larger circles can be accurately cut with multiple extension bars joined together.

Duplex Edger

Taber Instrument Corp., 127 Goudy St., North Tonawanda, N.Y., has recently announced a combination edging and folding machine that will simultaneously bead or fold one or both parallel edges of sheet plastic in like or different folds or beads.

This machine was designed for rapid sus-



Taber Edging Machine

tained production and guaranteed repetitive uniformity.

Operation of the machine is continuous and automatic when roll material is used. Sheets, die cut or printed blanks are fed by hand. The machines are designed to bead or fold cellulose acetate, ethyl cellulose, vinyl acetate,

cellulose nitrate and similar sheet stock, roll material, die cut blanks and strips.

Drinking Water Cooler

Ecbo Manufacturing Co., Columbus, Ohio, recently announced volume production of a water-cooled electric drinking water cooler described by its makers as being the first ever built specifically to withstand rust, corrosion, and mechanical damage in industrial locations, characterized by high ambient temperatures, corrosive fumes, and dirt and lint.

Known as model OP-10W Oasis electric drinking water cooler, this member of the Oasis line features air-tight protection to all operating parts, plus the impressive capacity of ten gallons of properly cooled water an hour in even extremely hot locations.

The manufacturer describes this model as being built especially for use in steel mills, foundries, tobacco factories, paper mills, textile mills, laundries and those applications where lint is present, high temperature or high humidity conditions exist.

Welding Equipment

Lincoln Electric Co., Cleveland 1, Ohio, announces manual equipment for semi-automatic hidden arc welding. This development, known as the Manual Lincolweld, is said to increase the versatility of the hidden arc process by providing simplified, flexible and maneuverable welding equipment that produces the smooth, deeply penetrating, spatter-free welds normally associated with fully automatic operation.

This equipment is a self-sufficient, portable unit for semi-automatic welding, providing all the necessary welding current and auxiliary power plus the automatic wire feed mechanism and controls.

It is said to have been used successfully to reduce costs while improving quality in the production of containers, pressure vessels, railroad equipment, machinery parts, pipe, construction equipment and in many other applications.

Rotary Pressure Joint

Johnson Corp., Three Rivers, Mich., recently announced another development of the Johnson rotary pressure joint; one which

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Choice plant sites, 5 main line railroads, deep water harbor, low cost power, willing labor, both skilled and common, a new 40 million gallon daily industrial water supply and many other favorable factors may provide the exact combination you require.

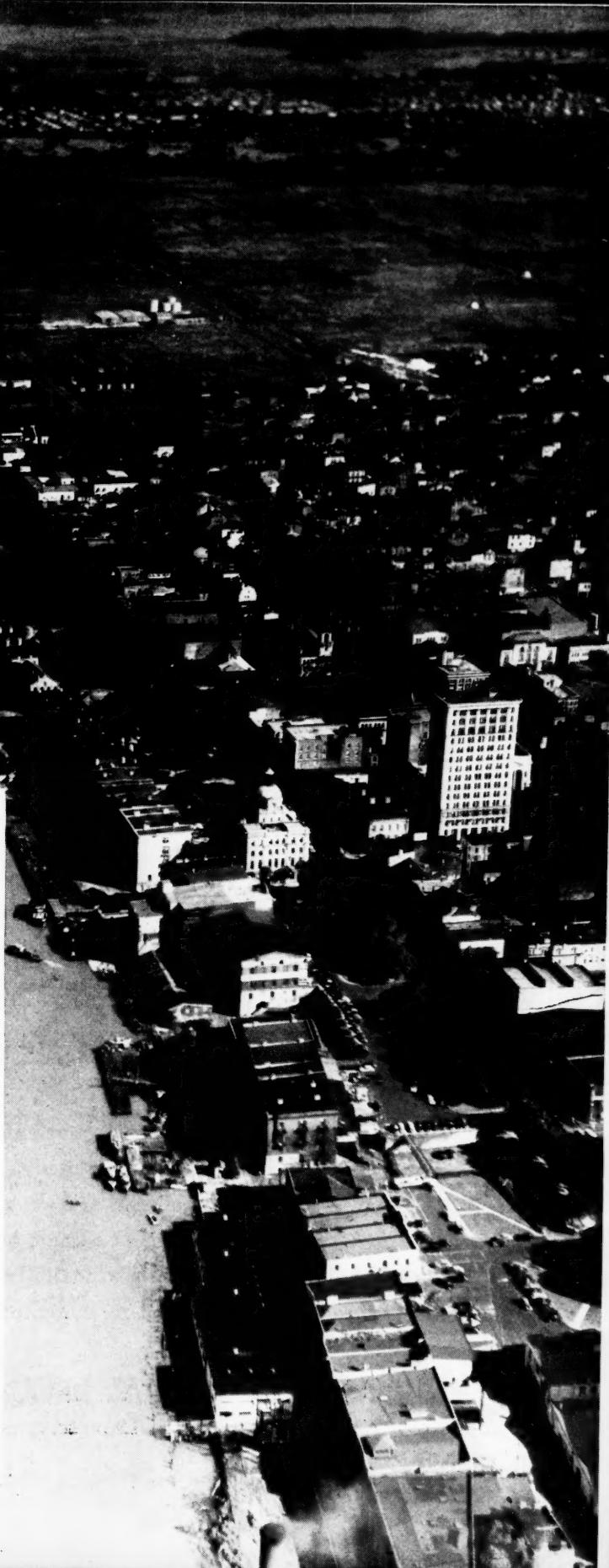
Please write in confidence, stating the type and class of production with which you are concerned. The facts and figures pertaining to your specific aims will be compiled for you without cost or obligation.

The Chamber of Commerce

The Industrial Committee

The Savannah Port Authority

SAVANNAH, GEORGIA



NEW PRODUCTS

has been designed to be self-supporting and require no external piping support. Known as the type S, it will be used like the standard Johnson joint to admit heating or cooling agents to rotating rolls, particularly where considerable lateral movement of rolls is encountered, or where supports for the standard Johnson joint cannot be satisfactorily provided. It will find application in textile mills, paper mills and a wide variety of other processing plants.

Like all Johnson rotary pressure joints, the type S is completely self-lubricating, has no packing of any sort, and adjusts itself automatically for varying pressures. It also has a spherical sealing surface which maintains an effective seal even though wear should occur at this point.

Spec-Lite Goggle

Chicago Eye Shield Co., 2300 Warren Boulevard, Chicago 12, Ill., recently announced a new design for its Cesco Spec-Lite Goggle that includes a different type forehead rest, plus balanced temple suspension. The actual weight of the goggle is one ounce.

This spec-lite also features adjustability for correct fit on various faces. The one piece plastic lens is quickly and easily replaceable, and has distortion-free visibility.

This design is said to permit comfortable wear over personal glasses. It is available with either clear or glare-reducing green plastic lenses.

Prepared Discs

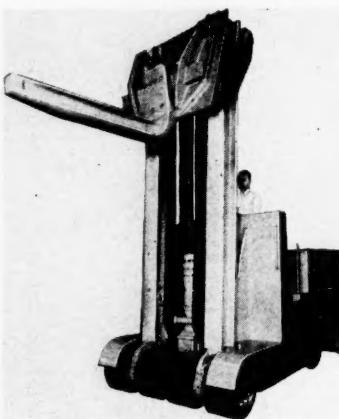
Latrobe Electric Steel Co. announces that as a new service to tool and die makers, it will supply hardened, tempered, polished and etched discs with every mill order for Degasitized Brand high speed and high carbon chromium steel bars.

The prepared discs will afford consumers the opportunity to inspect in advance the structure of the steel as it would normally appear after full heat treatment and processing into finished tools and dies. Exact control is thus assured over the quality of material committed to production.

A booklet describing the new service is available upon request to the Company.

Super Truck

Yale and Towne Manufacturing Co., Materials Handling Division, Philadelphia, Pa., has announced a 20-ton ram-type electric power truck. This truck was designed to improve coil-handling during processing, storage and shipping operations. Specifically, it has an elevating height of ten and one-half feet, a lifting capacity of 20 tons, a maximum speed under load of 5 miles per hour, a 360-degree rotating drive unit which permits operation in narrow (10 foot) aisles, and unobstructed driver visibility.



Super Truck for Steel Mills

Hydraulic Assembly Press

Agnew Electric Co., Milford, Mich., recently announced a special hydraulic machine for assembly of one piece spark plugs that can

also be adapted to progressive welding and foaming operations. It is identified as special hydraulic machine, type HCP3-5. All sequencing operations are performed hydraulically providing against any possibility of machine getting out of proper sequence. The machine incorporates a table that has six sections which index 60 degrees by means of a hydraulic motor. It weighs 10,000 pounds, occupies 60 inches by 60 inches of floor space and is 60 inches high. It can turn out 1500 complete parts per hour.

Crane Control

Harnischfeger Corp., 4400 W. National Ave., Milwaukee 14, Wisc., has developed a principle of crane control said to eliminate mechanical load brake.

Called Magnetorque, this AC crane control provides unusual hoisting smoothness and accuracy. The Magnetorque is a simple unit through which braking forces are exerted magnetically. The Magnetorque governs the action of the hoist motor which is directly connected through the crane gear train to the hoist drum.

The hoist motor drives the load both up and down but cannot be energized until the Magnetorque unit has been excited. The Magnetorque is said to be good for the life of the crane. A new bulletin, No. C-39 explaining the unit may be obtained from the company.

Pipe and Tubing Cutter

Quijada Tool Co., Inc., 5474 Alhambra Ave., Los Angeles 32, Calif., has announced a high speed "E-Z Cut" pipe and tube cutter that features power-driven rollers, automatic start-stop action and ball bearing operation.

This fully portable machine is compact in design, and is said to simplify and speed up pipe and tube cutting operations in pipe diameters ranging from $\frac{3}{8}$ inch to 4 inches. Cutting cast iron pipe within the same range is also possible with this cutter. Ball-bearing mounted cutter wheel is easily removed for sharpening.

The machine is furnished with 10 feet of electric cord, and with twist lock plug and motor, and is available immediately.

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WARE COUNTY INDUSTRIAL DEVELOPMENT ASSOCIATION, INC.

M. M. MONROE, Pres.

WAYCROSS, GEORGIA

LISTON ELKINS, Sec.

NEW PRODUCTS

Bench Cleaner

Pennsylvania Refining Co., Cleveland 4, Ohio, has announced the packaging of Penn Drake Gumout in new 5-gallon full-removable cover container to facilitate its use as a bench cleaner.

The new pail is so designed that with cover removed, it serves as a convenient cleaning vat. It is ideal for use by garages, maintenance depots, filling stations, airports, marine bases and truck, taxi and bus service departments.

Gumout is an extra fast bench cleaner for carburetor and other small parts, according to its manufacturer. It is reputed to eliminate the necessity for prolonged soaking and rinsing even in the most severe cases.

Conveyor Belt

Goodyear Tire and Rubber Co., Akron, Ohio, has recently developed a ribbed-top conveyor belt designed especially to prevent back-slip

in carrying sand and gravel, wet-mixed concrete, gold dredgings and other "soupy" materials up steep inclines.

This belt features chevron-shaped ribs one-quarter of an inch higher than the belt surface, which serve as barriers, trapping the water and preventing the backwash of materials down the belt on incline operations.

It has a five-ply rubberized fabric body, and a quarter-inch top cover in addition to the ribs. It is being made in widths of 30 to 48 inches, and in lengths to customers' specifications.

Vacuum Cleaner

Breuer Electric Manufacturing Co., 5100 Ravenswood Ave., Chicago 40, Ill., has announced manufacture of model 101 Tornado vacuum cleaner, said to be the first small size cleaner for general use built throughout to large, industrial-type standards of durability and performance.

Powered by a one-half horsepower motor of accepted standard design mounted on self-

lubricating ball bearings, this small, compact, powerful machine develops an exceptionally strong suction with a waterlift of 47 inches and is far more powerful than any domestic type cleaner.

It is said to be ideal for small shops, hotels, apartment buildings, homes, office buildings, gas stations, motor courts, theatres, restaurants, laundries, schools and the like. This model weighs 29 pounds and is easy to handle and carry.

Screwdriver Handles

Plumb Tool Co., Los Angeles 54, Calif., announces that it has made two departures from former designs of plastic handle screwdrivers. First, the handles have been reshaped to fit the hand, and second, an entirely different plastic is now used.

The hand-fitting handles are rounder and larger through the palm section and smaller in diameter to the end where the little finger grips.

The plastic selected is both non-inflammable and non-explosive, and is said to be a good insulator. It has great toughness and high impact strength, even at low temperatures, the manufacturer states. To anchor the handles securely, they are molded right on the shanks instead of being driven into place.

Steel Belt Conveyor

Sermat Conveyor Corp., 2350 W. 58th Street, Chicago, has announced a new method of custom building conveyors. They claim their new Flex-E-unit Steel Belt Conveyor is composed of a head or drive section and take-up section at the opposite end. Each of these sections



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Pre-designed ARMCO PIONEER Steel Buildings are mass-produced for lower costs. Yet they can be "individualized" to meet your requirements.

Special fronts of your own design, as well as masonry and other types of sidewall finishing can be used with PIONEER construction. The building can be tailored to fit your lot. Doors, windows and ventilators may be placed anywhere. And you can easily add special interior details including

partitions, wiring and plumbing.

A trained ARMCO crew erects your PIONEER Building. All you need is the foundation, and we will even help design that if you want us to. The completed structure is weathertight, fire-resistant and lightning-safe.

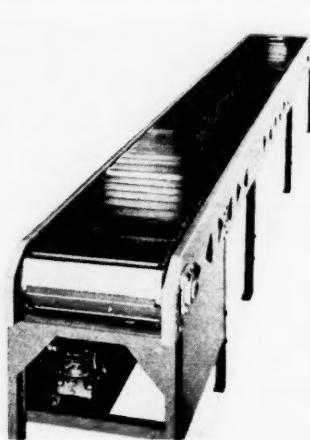
You'll like the economy and efficiency of ARMCO PIONEER Buildings for warehouses, garages, factories and similar structures. Write for complete information on your specific needs.

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ARMCO PIONEER STEEL BUILDINGS



Add-A-Section Conveyor

is five feet long and when combined they form a 10 foot all-steel conveyor.

This basic arrangement can be lengthened to as much as 175 feet by adding 4 or 5 foot sections between the head and takeup ends. The conveyor is made in four widths from 12 inches to 36 inches in either 3 or 6 inch pitches. Rated at 30 F. P. M. Sermat, after learning of the application for the conveyor from the user will install the correct drive for ample power.

Float-Sink Concentrator

Link-Belt Co., 307 N. Michigan Ave., Chicago 1, Ill., announces that it has developed a float-sink concentrator for cleaning coal, ores and similar materials by the heavy media method of separating and removing the rejects.

It consists essentially of a drum-shaped tank to contain the liquid medium and the rotating elevator with perforated lifter shelves that deliver the sink material to the flume.

This cleaning process has been in use for a considerable time in a coal operation plant, and the results are claimed to have been most satisfactory.

Miniature Velometer

Illinois Testing Laboratories, Inc., 420 N. La Salle St., Chicago 10, Ill., recently announced a miniature Alnor Velometer, Jr. which is said to answer the need for a porta-

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MAY

NEW PRODUCTS

ble, low-priced, direct reading instrument, giving spontaneous and precise measurement of air velocities in unrestricted areas.

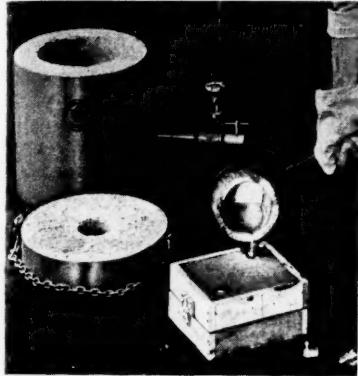
Completely self-contained, the Velometer, Jr., 4 inches high, 3 inches wide, and one and one-half inches deep, weighs 8 ounces and has single or double velocity range scales.

This instrument is calibrated to provide direct reading of air velocity in either feet per minute or miles per hour without timing, calculations or reference to tables and charts.

Melting Furnace

Foundry Junior, a small melting furnace complete with all equipment and tools necessary to produce sand and plaster mold non-ferrous castings, has just been announced by the Sawyer Bailey Corporation, Buffalo, New York.

This complete, inexpensive foundry is designed and built for home craftsmen, vocational schools, junior colleges, laboratory and commercial use.



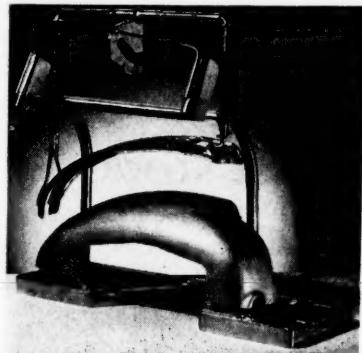
Junior Foundry Unit

The complete unit consists of furnace, crucible, tongs, crucible holder, skimming and stirring rods, asbestos gloves and goggles. The molding equipment consists of special grade foundry sand, flask, riddle, rammer and all other necessary tools.

The furnace shell is of welded steel construction and is lined with the highest grade refractory and capable of operating at a temperature of 2400° F. The cover is of the same refractory and is reinforced with steel bars.

Metal Masking Template

The Conforming Matrix Corporation, Toledo, has announced a new form-fitting electro-formed metal masking template that



Form Fitting Template

makes the spray painting of sunken or raised areas of metal or plastic parts a relatively simple matter. Two patents are held on the development.

These masks neither deteriorate nor lose their form during cleaning. Bright, durable enamels, one color right after another, can frequently be wet painted before baking, on many convex, concave or irregularly shaped three-dimensional parts with these accurate masks. The difficult and costly procedure

of forming masks by hand and the necessity of cleaning after painting is claimed to have been eliminated.

Clean-cut, sharply defined letters and effects on even small emblems of most intricate design are obtained. A thin, strong lip of metal which fits into the edge of the debossed areas, which are to receive paint, traps the paint, eliminates fogging at the edge of the paint line, and avoids after-wiping or buffing off of overspray.

Bar Cutter

Andrew C. Campbell Division, American Chain and Cable Co., Inc., Bridgeport 2, Conn., recently introduced the low cost Campbell model 233 bar cutter. It is a hand operated wet abrasive cutting machine designed for fast, high quality cuts on practically all types of materials up to two inch diameter stock and three and one-half diameter tubing. This bar cutter features a five inch wheel flange, wheel guides, automatic work stop, automatic coolant pump operation, automatic

hydraulic work clamp. The machine is painted number 7 machine tool gray; all interior parts, such as work holder, work clamp, etc., are cadmium plated.

Aeropass Condenser

Niagara Blower Co., 405 Lexington Ave., N. Y. 17, N. Y., announces an improved design of the Niagara Aeropass Condenser to condense refrigerant gases and provide trustworthy control for the year around operation of a refrigerating plant at a standard minimum compressor head pressure, automatically.

The purpose of the equipment is to remove the difficulties (and danger of inattention) in the manually operated control of compressors and condensers and also to insure the refrigeration plant owner always full capacity of his refrigeration system and to save considerable power cost in compressor operation by keeping head pressures at the minimum under all conditions encountered throughout the year.

PEERLESS

HORIZONTAL CENTRIFUGAL PUMPS

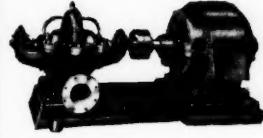
For
Most Services
In
All Industries

FOR CONTINUOUS DUTY
GENERAL SERVICE PUMPING

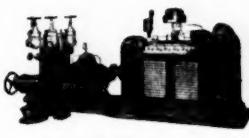
Peerless Type A Pumps

Capacities:
Up to 70,000 G.P.M.

Heads: To 300 ft.
1 to 1000 H.P.
All Types
Drive.



TYPE A SINGLE STAGE PUMP



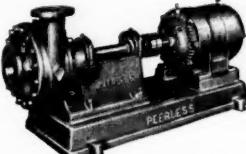
TYPE AF WITH COMPLETE FITTINGS

FOR ACIDS, CAUSTICS, HOT
OILS, CHEMICALS AND
PROCESS SERVICES...

Peerless Type C Pumps

Capacities:
10 to 1,200 G.P.M.
Heads:
Up to 100 lbs.
1 to 60 H.P.

Request Bulletins
On The Type Required
For Your Applications.



TYPE C SINGLE STAGE PUMP

FOR ADEQUATE FIRE
PROTECTION SERVICE
TYPE AF FIRE PUMPS*

Underwriters' Approved

Capacities:
500 to 2000 G.P.M.
Pressure: Up to
150 lbs. - 20
to 250 H.P.

*Formerly
Dayton-Dowd

PEERLESS PUMP DIVISION

Food Machinery Corporation

Factories: Los Angeles 31, Calif.; Quincy, Ill., Indianapolis, Ind.

District Offices: New York 5, 37 Wall St.; Chicago 40, 4554 No. Broadway; Atlanta Office: Rutland Bldg., Decatur, Georgia; Dallas 1, Texas; Fresno, California; Los Angeles 31, California



Six standard coal barges nearing completion in the Barge Construction Building at Ambridge, Pennsylvania.

The modern
all-weather facilities
of American Bridge
Company include
complete indoor
construction for
barges and other
floating equipment.



AMERICAN BRIDGE COMPANY

General Offices: Frick Building, Pittsburgh, Pa.
Offices in New York, Philadelphia, Chicago
and other principal cities
Columbia Steel Company, San Francisco,
Pacific Coast Distributors
United States Steel Export Company, New York

UNITED STATES STEEL

Make or Purchase

(Continued from page 130)

might otherwise be purchased on an economical basis. This may be true because of the reason given in the preceding paragraph, or because when the article is manufactured by the user the economical production lot may be smaller than would be the case if the article were purchased from an outside supplier. This is a particularly important factor under present conditions of high price level and limited working capital in the majority of companies.

On the other hand, in a few industries, such as the automotive industry, the manufacturer of the final product is often able to arrange with his parts suppliers to furnish parts according to a rather flexible schedule. This is, of course, only possible in situations where the suppliers of parts feel that their profit from selling the parts to a particular customer is sufficient to justify a practice which is apt to be quite costly to them. As will be explained more fully in the article in our June issue, the supplier of parts may sometimes find himself in a situation where he feels unable to reject demands of this sort even when he feels that such demands are unreasonable.

Many Cases

There are many cases where the quantities involved are simply not large enough to make the business attractive to outside suppliers. One solution to this problem is to increase the standardization and interchangeability of the parts involved so that the quantities become sufficiently large. This entire matter of

standardization and interchangeability of parts should be the subject of constant study for this and other reasons. The writer knows of several cases where changes of this kind, which were made so as to make it possible to buy economically, had other even more valuable results.

As was explained in detail on pages 27 and 28 of the January 1948 issue, it is often economical to *continue to use* an obsolescent method even though it would not be economical to purchase the equipment that is required for this method if the equipment were not already owned. Very often present equipment of this sort has little or no realizable value for any other purpose, in which case it is economical to continue to use it until the savings in operating expenses of a new method more than offset the fixed charges which would result from the installation of the new method. Equipment replacement literature and formulas are full of errors with regard to this very important aspect of the problem.

There is often a minimum amount of general indirect overhead expense in the factory and office, and sometimes it is profitable to manufacture articles merely because of the ability to distribute such indirect overhead expense over a larger production. However, in many cases there is no basis for the widely-held belief that little or no additional indirect overhead expense is required with additional production, or that little or none of the present indirect overhead expense could be eliminated if the articles in question continued to be purchased. Keeping indirect overhead expense at a minimum requires a constant battle; these expenses have a tendency to increase gradually un-

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COLD ROLLED STRIPS & COILS
COLD & HOT ROLLED SHEETS
COLD FINISHED STEEL BARS
HOT ROLLED BARS
TOOL STEEL

SEAMLESS & WELDED TUBING
SPRING STEELS (TEMP. & ANN.)
STAINLESS SHEETS, BARS, TUBES
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less they are kept under control by a constant and conscious effort.

It is possible to avoid paying exorbitant prices by making an article instead of buying it, but it is the writer's opinion that this is not generally a good reason in itself for making an article. If other factors would justify purchasing the article, it would seem that a manufacturer who really understands the problem should be able to protect himself against being "held up" in this way. After all, the supplier will be more interested in continuing to make a reasonable profit than in "making a killing" on a single order and losing a customer for the future.

Under certain circumstances it may be possible to eliminate both the profit and some of the costs of the outside supplier by manufacturing an article, but this is something which cannot be done as easily as most persons seem to think. There are a few industries, such as the production of steel, where most of the larger units possess a high degree of "integration," through controlling most of the few raw materials they require, but even these companies conclude their operations in most instances with a product that becomes the raw material for many other important industries which produce for the final user. The mining of iron ore and coal and the quarrying of limestone, the three principal raw materials used in the production of steel, may well be considered to be part of the production of steel, and these operations are of such magnitude that they justify an organization to specialize in each operation.

On the other hand, one rarely finds even the largest manufacturing company mining its own coal or producing its own steel. (A few large manufacturers have recently bought steel mills in order to help them overcome the present steel shortage, but it is very unlikely that they will continue to operate these facilities when conditions in the steel industry are such that one can buy steel easily.) The very large manufacturing companies are already so large and so unwieldy that it is difficult to imagine their being more successful through producing all of their raw materials.

During the 1920's two of the very large automobile companies did make much of the fact that they were very highly integrated, and advertised that, "We save the car buyer money because, of course, we do not include a profit on any part of our operations except the actual manufacture of the automobile."

But they failed to state that for them the manufacture of automobiles included everything they did in all of the various ramifications of their operations, nor did they state that it was necessary for them, as with all other manufacturers, to make a fair profit on all of the money invested in their business, including that invested

THE BALTIMORE AND OHIO RAILROAD COMPANY

Summary of Annual Report--1947

TO ALL SECURITY HOLDERS:

Industrial production in 1947 was maintained at a high level and the volume of freight transported by the Company was greater than for any preceding peacetime year. Total earnings were \$367,600,700, but expenses reached an all-time high at \$358,341,319, leaving net earnings of \$9,259,381. Comparison with 1946 follows:

EARNINGS:	1947	Comparison with 1946
From transportation of freight passengers, mail, express, etc.	\$360,294,995	I \$55,310,279
From other sources — interest, dividends, rents, etc.	7,305,705	I 912,607
Total	\$367,600,700	I \$56,222,886
EXPENSES:		
Payrolls, material, fuel, services and taxes	\$327,255,262	I \$52,381,502
Interest, rents and miscellaneous services	31,086,057	D 857,068
Total	\$358,341,319	I \$51,524,434
NET EARNINGS		
	\$ 9,259,381	I \$ 4,698,452

The return on the Company's net investment of \$956,423,861 in property devoted to transportation service was only 3.04%, or about half of the 6% considered a fair return.

Confronted by sharply higher wage and supply costs, and an inadequate return on investment in their properties, the railroads petitioned the Interstate Commerce Commission during 1947 for increases in rates and fares. Two interim freight rate increases were granted, effective October 13, 1947 and January 5, 1948. It is estimated these interim increases will yield the Company 16% additional freight revenue annually based on present traffic volume. The Commission still has before it for final decision the petitions for permanent relief. Passenger fares were increased June 1, 1947 from 2.2 cents to 2.5 cents per mile in coaches, and from 3.3 cents to 3.5 cents per mile in Pullman cars. Increases in express rates and an interim increase in pay for handling railway mail were also authorized.

The acquisition of 30 powerful steam locomotives, seven Diesel passenger locomotives, 1940 steel box cars, 7365 steel hopper cars, 100 express cars and miscellaneous passenger and work car units, at a cost of about \$42,000,000, coupled with substantial improvements in line, track, terminals and structures at many points on the railroad, brought B & O's transportation efficiency up to the highest point in its history. With the delivery of 5636 additional steel hopper cars, 60 Diesel road freight locomotives and 100 Diesel switchers, scheduled for 1948, it is believed the Company's freight handling equipment should be adequate to meet traffic requirements.

The Management acknowledges, with appreciation, the loyalty and efforts of officers and employees, and the cooperation of stockholders, patrons and agencies of the Government throughout the year.

R. B. WHITE, President

in the production of those raw materials which they produced themselves. There are many opportunities for profit in a reasonable amount of "integration," but no steps towards integration should be taken without most careful study. For one thing, integration is very hazardous in times of depression, or even in times when the particular company is suffering from a decrease in business although the general rate of production may be high. An independent coal mining company may well get along fairly well even if one of its best customers is unable to buy any coal whatever, but the coal mining subsidiary of a large manufacturing company will find it almost impossible to sell coal on the general market at times when it does not need the coal for its own operations.

Factors Favoring Purchase

The factors favoring purchase do not seem to be as numerous as those favoring manufacture, but they are just as important. Some of the reasons for purchasing are as follows:

1. Greater efficiency of outside supplier, because of specialization.
2. Reduced total investment in facilities.
3. Reduced management complications.
4. Smaller load to carry during times of reduced demand.

There are all sorts of reasons why the

outside supplier may have greater efficiency, resulting in lower real costs, and prices that may well be less than would be the cost (including even the slightest return on the extra investment) if the manufacturer produced certain parts himself. Most of this increase in efficiency will doubtless be due to more advanced mechanization and specialization in the production processes themselves, but in addition, the efficiency of top management itself will be higher in most cases if there are not too many dissimilar problems to be handled.

Total Investment

The total investment in productive equipment that would be required for even a moderate degree of integration would be enormous for companies of considerable size. It is true that the problem being considered in this article is principally one of deciding whether certain individual articles should be manufactured or purchased, but with the mechanization of today this question soon leads to the problem of at least limited integration.

For example, the manufacturer of industrial trucks must decide whether to make or to buy his wheels and casters. Some members of the industry follow one of the two possible methods, and

some follow the other method. Even if we assume that it is profitable to make such parts, there is no doubt that a considerable amount of investment, production know how, and also design ingenuity are required to produce these parts efficiently, to say nothing of the problem of producing something that will satisfy the ultimate users.

When discussing the other side of this problem earlier in this article, it was pointed out that the purchase of certain parts was apt to lead to reduced management complications and to a smaller dead load of capital investment to carry when the demand for a manufacturer's product decreased. It is not necessary to dwell further on these factors.

Conclusion

For the reasons given at some length in this article, it is evident that the problem of whether certain articles should be made or purchased, to say nothing of the larger problem of possible integration by moving towards the raw materials or towards the product in final use, is too large a problem to be solved satisfactorily without most careful study.

Much material has been published on various aspects of this problem, and it is evident from a study of this that representatives of the manufacturing department of a company have a tendency to feel that certain borderline articles should be manufactured, while representatives of the purchasing department have the equally human tendency to feel that such articles should be purchased.

All of us instinctively wish to increase the importance of our own department. Top management should be able to handle matters of this sort, but unless management is unusually alert to the limitations of any of the common cost accounting systems, it may easily make an incorrect decision with regard to this problem merely because members do not fully realize that the cost accounting figures which are so often used in making these decisions do not in many cases provide the necessary information for making the decision.

It should be remembered at all times that in such problems it is often necessary to develop cost figures which are entirely different from those which may logically be used for more conventional purposes. It is because of things of this sort that controversies arise about costs between members of the cost department and members of the production department. The methods used by each may be perfectly satisfactory for the purposes for which these methods were devised, but they are often quite different methods with quite different results in particular cases. The reasons for these proper differences are quite generally misunderstood.

Increase The PRODUCTIVE CAPACITY of Your Mechanized Equipment with WISCONSIN *Air-Cooled* ENGINES

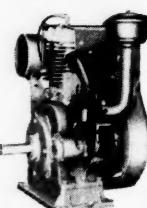
If you build or use any kind of equipment that is or that CAN be successfully engine-powered — there is a fairly definite certainty that you can actually increase the productive capacity of the machine by motorizing with a Wisconsin Air-Cooled Engine.

This rather broad statement is predicated on the fact that Wisconsin Engines are notable for continuous, high ratio power output as well as an absolute minimum of maintenance and servicing layups. In addition to the basic advantages of air-cooling, light weight, compact design and all-weather serviceability — you are assured of "Most H.P. Hours" of on-the-job operation, thanks to advanced engineering and heavy-duty design and construction.

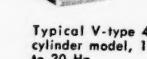
Wisconsin Engines are worth looking into on all counts. Your interest will be heartily reciprocated.



Typical 4-cycle single cylinder model, 2 to 4 Hp.



Typical single cyl. model, 4 to 9 Hp.

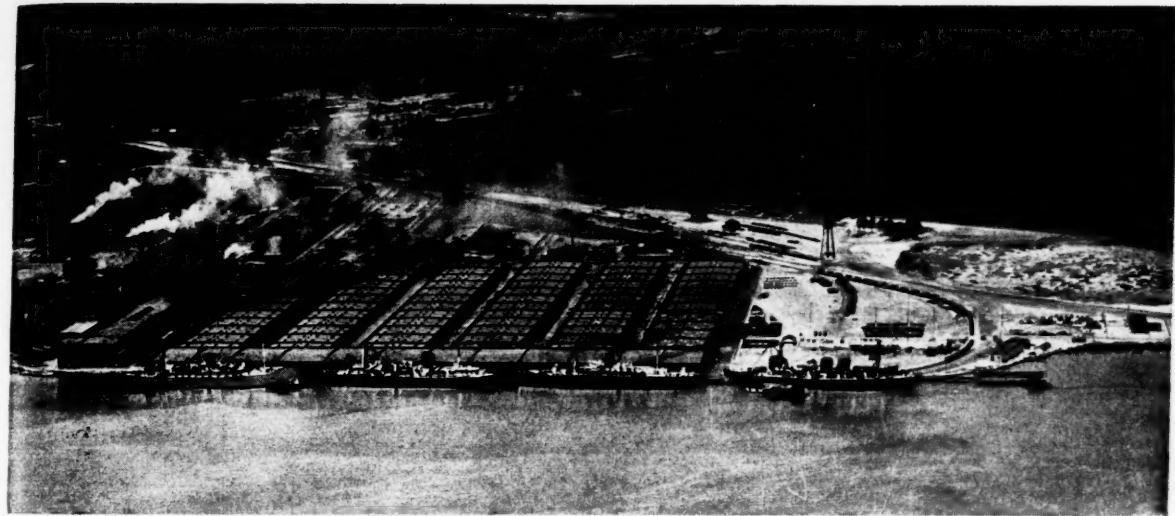


Typical V-type 4-cylinder model, 15 to 30 Hp.



WISCONSIN MOTOR CORPORATION

World's Largest Builders of Heavy-Duty Air-Cooled Engines
MILWAUKEE 14, WISCONSIN



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The \$20,000,000 former Charleston Port of Embarkation deep-water terminals now in active commercial operation. Modern quay-type concrete pier, million square feet fireproof warehouses, huge open storage areas, 300-car rail yards, shipside packing plant, modern equipment for rapid and efficient cargo handling. The South Atlantic's fastest growing seaport, with world-serving ship lines. Inquiries invited.

South Carolina State Ports Authority
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Every Day an Outstanding Day!

Friday, July 16—Distributors' Day
Saturday, July 17—International Day
Sunday, July 18—Educators' and ARBA Student Chapters' Day
Monday, July 19—Associated General Contractors' Day
Tuesday, July 20—ARBA Contractors' Day
Wednesday, July 21—County Day
Thursday, July 22—Municipal and Airport Day
Friday, July 23—All States Day
Saturday, July 24—Chicago Day

It is the most dramatic spectacle in construction history . . . a must for every construction man.

45TH ANNUAL CONVENTION & INTERNATIONAL ROAD SHOW — SOLDIER FIELD, JULY 16-24

WHY YOU should Plan to Come to the Road Show

There is a \$1,500,000,000 road program—the greatest in construction history. This stupendous figure represents the largest appropriation ever made for construction of highways and airports. By seeing this machinery exhibited at the Road Show you have the opportunity to get ready for your part in this greatest construction program of all time. If for no other reason than this, you should attend the Road Show.

Over 5000 pieces of equipment!

Imagine over 30 acres—a small farm—filled with construction machinery . . . some of it operating . . . some of it never before shown.

Technical Sessions You Can't Afford to Miss!

There will be discussions on highway engineering, grade separations, airport construction, soil compaction, soil stabilization, highway terminals, elevated, depressed and express highways, vehicle weights, construction practice, legal affairs and on many other topics that are so much a part of your daily work. Bring yourself up-to-date on the latest phases of these important subjects.

AMERICAN ROAD BUILDERS' ASSOCIATION
International Building Washington 4, D. C.

South's Activity

(Continued from page 132)

Then there was the impressive pulp and paper mill development which took place for the most part during the dark depression days of the 1930's. Stimulated by the inspiring work of the late Dr. Charles Herty, whose dream of newsprint made from Southern slash pine is now realized in the first mill of its kind at Lufkin, Texas, and soon to be followed by the 30 million dollar Coosa River Newsprint Company plant at Childersburg, Alabama, impressive, modern pulp mills dot the "pine belt" from Virginia to Texas.

Chemicals Rank Third

Chemicals, which now rank third in the order of output value, outranked only by food and textiles in that order, is another one of the major phases of the South's growth with a plant investment of nearly 3 billion dollars in a total of 2,500 South-

ern plants turning out products valued at more than 2.5 billion dollars annually according to first-quarter 1947 figures. The rate of expansion of this major industry along the Gulf Coast and in West Virginia is nothing short of explosive.

The fifth of these major Southern movements, of course, is in the production of crude petroleum and coal. Nothing too spectacular has happened here in the last few years, although the vast network of pipelines in the Southwest is not to be minimized, but as an example of sound continuing progress, the number of barrels of petroleum produced in the South has increased from 17 million in the year 1900 to more than 1100 million in 1946, while coal mined increased from 49 million tons in 1900 to 256 million tons in 1946.

Can there be any doubt of the South's progress just from a superficial knowledge of what has been accomplished? Of course, the skeptic will point out that much of the South's growth has been due to the temporary influence of war-time

activity; government orders placed in government-built and government-owned plants and that without this artificial stimulus, the South would really have nothing to brag about.

Even William Haynes in his sympathetic book *Southern Horizons*, published in 1946 and showing a rare understanding of the South and its ways of life for a non-resident, expressed great concern about what would happen after the war's ending. He said Southerners know all about their abundant raw materials and salubrious climate, the new war plants that dot their landscape, but that most thinking Southerners were, at that time, as disillusioned and realistic as a surgeon at the operating table. Obviously, according to him, the South enjoyed a great war boom, but he asked the question, will this region slump back or forge ahead? The same thought must have been in many people's minds, but we feel now that we know the answer beyond any question.

New Records

The South has taken the post-war adjustment period in its stride and is reaching for new production records with each passing month. For example, the South's output in 1939 was \$11.2 billions. In 1946 it had more than doubled, reaching \$24.1 billions. While final figures are not yet available, it is estimated that 1947 production exceeded \$31 billions, or was more than 285% higher than in 1939 and nearly 30% more than the first post-war year of 1946.

This figure is even more impressive considering the fact that it is greater than the value of the entire country's production in 1910 and equal to half of the nation's output, expressed in dollars, in 1920.

Going further with this examination of post-war adjustment, we find that every major Southern industry reflects an amazing growth in *unit* output, that is, after the inflationary factor is discounted, in 1947 as compared with the pre-war year of 1939. Electrical machinery manufacturers, for example, increased their physical production 284% over 1939. Trans-

GARY WELDED GRATING

Send for attractive paper-weight sample, which is yours for the asking. Catalogues upon request.

Square edge bars for safe footing.
Hexagonal cross bars for neat appearance.

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Sealed-in Lubrication -
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THE SLAYSMAN CO. Established 1885
Incorporated 1937 **ENGINEERS • MANUFACTURERS of INDUSTRIAL GEARS • MACHINISTS**



Ten Reasons Why Allied Steel Buildings are Most Practical for Expanding Business Firms

- Flexibility in lengthening or shortening
- Practically 100% Salvage
- Low initial investment
- Low maintenance cost
- Easy to construct
- Easy to dismantle
- Fire resistant
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Allied Steel Buildings are now in use in nearly every state in the Union and many foreign countries—Proof of their popularity and dependability.

ALLIED STEEL PRODUCTS CORP.
2100 NORTH LEWIS
TULSA, OKLAHOMA

BETTER PROTECTION against moisture, corrosion acids, deterioration . . .

RUBEROID

RAPID ASPHALT PAINT

Whenever wear, weather or chemical attack are dangers to structures or equipment, use Ruberoid Rapid Asphalt Paint for speedy, economical, durable protection.

A pure asphalt product composed of high grade bitumens, this paint is highly resistant to most acid and alkali conditions.

Ready to use, easily applied by brush or spray, it quickly dries to a lacquer-like hardness—nearly as tough as a "baked on" finish.

Almost any surface can have Rapid Asphalt Paint protection. Metal, wood, masonry or fabroid—this tough, waterproof paint adheres readily and permanently!

CHECK THESE ADVANTAGES

- High resistance to acid and alkali—protects against wear and exposure
- Excellent electrical insulation qualities
- Heat resistant—stands temperatures up to 212° F.
- Prevents corrosion, rust, rot and deterioration
- Highly penetrant—preserves wood
- Tasteless and odorless when dry

The **RUBEROID** Co.

Manufacturers of Building Materials

Baltimore 24, Md.

Mobile 8, Ala.

MAY NINETEEN FORTY-EIGHT

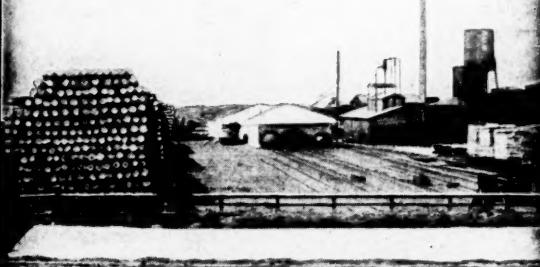
CREOSOTED

Piling, Poles, Lumber, Cross Arms,
Cross Ties

Also Wolmanized Lumber

Decay and Termite Proof—Can Be Painted

Docks for Ocean Vessels



American Creosote Works, Inc.

New Orleans, La.

Atlantic Creosoting Co., Inc.

Norfolk, Savannah, New York

Plants at: New Orleans; Winnfield, La.; Louisville, Miss.; Savannah, Ga.; Jackson, Tenn., and Norfolk, Va.

portation equipment gained 251%, machinery showed an increase of 240%, metal products 194%, and miscellaneous manufacturing 250%.

As a whole, durable goods made an average gain of 210% over 1939 while non-durables averaged 151% of 1939 production. The 1948 *Blue Book of Southern Progress* shows that the South registered a notable percentage gain in manufacturing output in comparison with the rest of the country. This section advanced, in the value of its manufactured products, from 19.7% of the national total in 1939 to 21.2% in 1946.

Gross Income

Looking at the South's post-war progress in terms of income before federal taxes, the South's gross income in 1946 was \$42.5 billions or a gain of 145% over the \$17.3 billions of the pre-war year of 1940. Divided among this region's 47 million people, the income for 1946 amounted to \$900 for every man, woman, and child or \$3,600 for each family of four, a good bit above what might be termed a bare subsistence wage.

Supplementing these comprehensive figures, and there are many more of a supporting nature readily available for those who care to study them, it is important to note in judging the war's effect on the South's immediate and future growth that current construction activity in the sixteen Southern states is running 91% ahead of last year. A total of 651 million dollars' worth of contracts have been awarded in January, February, and March, 1948. If the same rate continues for the remainder of this year, the total for 1948 will reach \$2.4 billions as com-

pared with \$1.9 billions in 1947, which, in turn, was the highest of any prior peacetime year.

So far during the first three months of 1948, 738 new plants and expansions have been reported, compared, in turn, with 704 during the first quarter of 1947.

These facts and figures are difficult to absorb and digest but they all wrap up into one conclusive, irrefutable fact that the South is showing material progress in the development and use of its great resources, and that the war stimulated, rather than retarded, its growth; also that its development is proceeding along sound and widely-diversified lines; and further, that we are only now beginning to realize the limits which may be attained here in the building of an industrial empire.

New England Picture

Some forty years ago, the MANUFACTURERS RECORD sent one of its correspondents into New England to observe the industrial achievements made there under adverse physical conditions, with the idea that this story would certainly contain lessons of value to those engaged in developing the South, so bountifully supplied with everything New England lacks. The series of articles resulting from that trip were later published in a booklet entitled "Yankee Thrift" and even today they make interesting reading.

Our correspondent pointed out that while success, like oratory, cannot be taught, yet there is always inspiration in hearing how, from small beginnings, a fellow human has worked out a splendid achievement, and especially is there room

for helpful suggestions and moving incentive to Southern men with their vast opulence of natural resources when we look into what has been so largely and so marvelously well-done in a land absolutely barren of fuel and raw materials. It would seem to be a case of clear grit triumphing over all obstacles.

There is a lesson in those words today. What an inspiration there is to the young men of the South, as well as to those who have lived through the difficult days of proving its advantages, to think of the limitless possibilities for future achievement.

Our skeptical friends, reviewing this amazing record of material progress, will be quick to point out that the fruits of this enterprise, the profit from Southern business and industry, are being drained from the South to line the pockets of investors and capitalists in the North and East and to pour into the coffers of the country's large corporations, from which came, for the most part, the original capital needed for this expansion in the South. As Peter Molyneaux of the *Texas Weekly* put it, "the curse of the South is its blessing of abundant raw materials. Because it has no raw materials, New England lives off the rest of the country by its wits, the South lives by charity because it has permitted the rest of the country to exploit its natural resources."

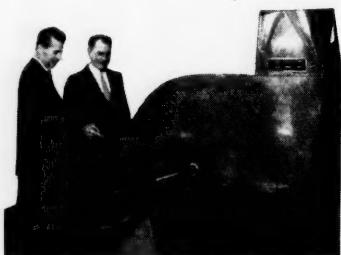
Popular Idea

In other words, the popular idea is that Southerners do all the work here and northern capitalists take all the profit. Many Southerners share this view, and it is a delight to point out the change that has taken place in this very important respect. The chenille bedspread industry of north Georgia is a fine example of what has been accomplished with Southern capital in creating a wholly Southern industry which, in dollar volume, has grown to \$121 millions for the year 1946.

Other examples are not too hard to find. The Georgia chinaware industry is one; Gordon Foods at Atlanta is another; and our first two newsprint mills, financed, in spite of determined resistance by certain Wall Street interests, as a result of the work of a group of Southern newspaper publishers spearheaded in the case of the Childersburg project by the inspiring leadership of Tom Martin, are perhaps most significant, to say nothing of the cooperative enterprise of a group of Southeastern banks in financing the 5 million dollar expansion program of Delta Airlines a year or so ago.

These are just a few of the specific instances that come to mind. For the comprehensive picture, remember that while it is true that all corporate income originating in the South does not remain here,

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Slow Speed Fans

Assure you a lifetime of Trouble-Free Service—they are built for the man who is tired of fan trouble!

We manufacture fan wheels to fit any make of fans, of

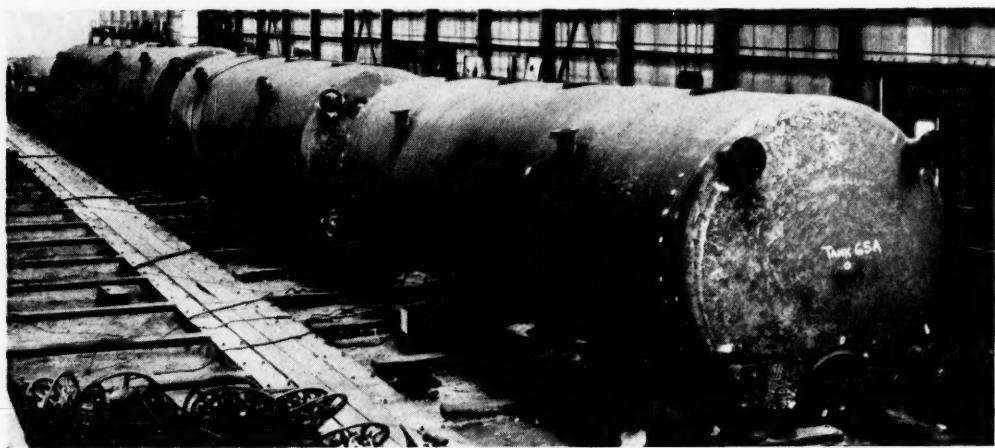
much heavier construction than can be procured from original manufacturer. Write us about your fan and blower system problems.

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A HALF MILE OF PRESSURE VESSELS

Seventy 38 1/2 foot vacuum tank casings were a part of recent pressure vessel production at Newport News.

Complete facilities available for construction of large pressure vessels.

FORGINGS

LARGE VALVES

CASTINGS

NEWPORT NEWS SHIPBUILDING AND DRY DOCK COMPANY

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Virginia

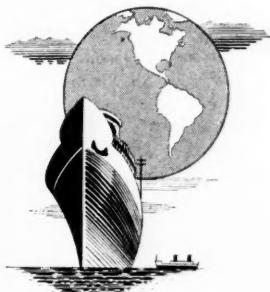
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"Chances are two to one that they can supply your immediate requirements in sheet metals and accessories, composition roofing, insulating materials, building and heating supplies of all kinds." YES SIR... Hundreds of contractors and owners of all types of buildings for the last 88 years, have called Lyon, Conklin first and have saved time... saved money... and stopped worrying. If we have it, you'll get it.

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When shipping through the Port of Baltimore, we invite you to use our complete foreign banking facilities.

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the greater portion does, and plays an important part in increasing the South's wealth. Using 1946 figures, the manufacturing plants of the South turned out products valued at \$24 billions and the profit from this operation, amounting to nearly \$2.5 billions, is reflected in increased income through dividends, expanded plant capacity, and retained capital surplus.

Figuring federal taxes to have taken 40% of the \$2.5 billions in gross earnings, there was still left to Southern manufacturing concerns \$1.5 billions to distribute as dividends or to carry forward as surplus or to use in further expansion.

Investments

Of the nation's total of \$73 billions invested in manufacturing corporations, partnerships, and individual operations, the South's share is more than \$16 billions representing a growth of \$10 billions since 1919. Percentage-wise, the South's share of the nation's total has increased from 15.5% in 1919 to 23.1% in 1946.

Had Southern industry been as fortunate in attracting capital for durable goods' production as for non-durables, the results would have been even more noteworthy. The South's invested capital in

non-durables constitutes 73 1/2% of the total.

Here lies a clue to the South's new objective, that of completing the chain of manufacturing processes from the raw materials, which the South has, into end or finished products. Many raw materials and farm products produced in the South are still shipped elsewhere for processing and most of its partly-processed products are also shipped elsewhere to be manufactured into finished articles.

The South is now ready to adopt and nourish enterprises of the finished product kind. And coinciding with this capacity to support finished products industries is the growing discontent of manufacturers in the over-crowded areas of the North and East. This discontent stems from many causes, not the least of which are subversive labor influences, work stoppages, high taxes, and discriminatory state legislation. In these respects, the South offers an attractive contrast.

Why shouldn't the South capture national leadership in the production of iron and steel? The Mesabi range in the Great Lakes district, on which the great Pittsburgh and Chicago mills have depended for so long, will be critically depleted in another twenty-five years. At that time, Southern ores will inevitably come into greater play and more ores will be imported from Cuba and South America to feed mills like the Bethlehem steel operation at Sparrows Point.

Every Southern port, and remember the South has two-thirds of the nation's coastline, is a potential site for a new steel plant. And why shouldn't the South develop a machine tool industry? Why shouldn't the South make airplanes, automobiles, and other machinery in larger volume? Southern labor has proven its aptitude, its skill, and its loyalty. It can no longer be said that Southern labor is lazy, cheap, and inefficient. The war gave

the final answer to that.

Let's pause for a moment to see what ground we've covered. We have described a *Place*—which nature has blessed with all the things man can hope for; we have described a *People*, rich in Anglo-Saxon heritage, who have rendered a good accounting of their stewardship; and we have before us a *Project* to challenge the best that is in us.

To bring the South into her true heritage, let's not be too proud to borrow some of the "Yankee grit" of our Northern brothers, some of the progressiveness and daring of Texas (a great part of our own true South) and the Far West, and, at the same time, retain the charm of the South's way of life in giving to this part of our country the industrial leadership it so rightfully should have.

This article is based on a speech given by Mr. Gould before the May 2 convention of the Southern Association of Science and Industry.

Sale of C & S Stock Allowed by SEC

The Securities and Exchange Commission recently authorized Commonwealth and Southern Corp. to sell its 800,000 shares of South Carolina Power Co. common stock to South Carolina Electric and Gas Co. for \$10,200,000.

In approving the sale, the commission permitted Commonwealth to reject a higher bid of \$11,600,000, submitted by the South Carolina Public Service Authority.

The commission said any delay in the state courts in establishing the Public Service Authority's legal right to bid for Commonwealth's interest in South Carolina Power might result in "cash stringency" for Commonwealth which needs cash for a proposed construction program.

Commonwealth, a New York holding company, was directed by the S.E.C. on August 1, 1947 to divest itself of its interest in South Carolina Power.

In hearings before the commission, the South Carolina authority, the City of Charleston and various state officials opposed the sale of the Commonwealth holdings to South Carolina Electric & Gas. The holding company in return, had argued that the authority did not have the legal right to buy the electric, gas, and transportation properties of its subsidiary and the electric properties of Lexington Water Co., another subsidiary.

HENDERSONVILLE HAS ADVANTAGES . . . PLUS

Hendersonville, North Carolina, invites inspection of its exceptional facilities available to new industries. Located in the famed, "LAND OF THE SKY," this region offers invigorating year-round climate, ideal for furniture, textile, electrical, extractive and other industries.

AMPLE POWER
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A rapidly developing trade and distribution center, this area offers splendid opportunities for alert industrialists.

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COMPLETE PLANT. IDEAL FOR CHEMICAL OPERATION

Brick Building. 20,000 square feet floor space. Approximately 3 acres land. Three 300 horsepower high pressure boilers. 240 tons refrigeration. 800 gallon per minute, free flowing, 60 degree spring. Railroad siding. Located heart of Birmingham. For details contact

A. R. DEARBORN & COMPANY
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Another GOOD PLACE TO LIVE, LABOR AND PROSPER

Situated on COOSA RIVER (soon to be opened—Rome to Mobile) 3 railroads; 2 paved highways (91 & 76); site of Ala. Ordnance Works great powder plant, now being converted to peacetime uses—newsprint plant; fertilizer factory and, probably, rayon mill.

Several smaller industries already operating. Population 4,000; 3 schools; 7 churches; 350 Government dwellings; waterworks from 1200 g.p.m. DeSoto Spring; electric lighting and power; health unsurpassed. 500 Dwellings needed now.

ALL THIS and MORE can be found at CHILDEBURG, (Talladega Co.) ALABAMA. Write Chamber of Commerce for further information.

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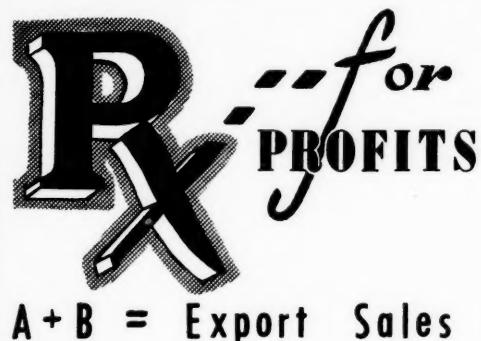
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Let us discuss your problems in person at your factory or office.

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You are sure of "height that's right" for every worker when you choose Kewaunee Automatic Adjustable Chairs and Stools. That extra comfort feature has a definite effect on production by lessening fatigue. Split-second adjustment to the right height is made automatically by the worker. Lifting the seat locks it firmly at desired height. No fussing with screws, bolts or tools.



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AUTOMATIC ADJUSTABLE CHAIRS and STOOLS

4 HEIGHT RANGES—12-15", 15-20", 18-26", 24-35"

Why not keep your personnel at the proper level for peak production? We'll send you a Kewaunee Chair or Stool on a 30-day trial at no cost or obligation. Write for circular and full details.

DEALERS—Some territories available. Write today.

KEWANEEN MFG. CO., 5070 S. Center St., Adrian, Michigan

**NOW- ADDITIONAL PLANT
CAPACITY FOR
STAINLESS
STEEL
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**IN ANY QUANTITY
ALL TYPES**

We now offer quick delivery on all-welded stainless steel vessels of all types, in large quantities. Additional fabricating equipment to handle heavier tonnages of stainless steel has been installed at our Birmingham, Ala., and Pascagoula, Miss., plants.

We can fill your requirements on both solid stainless and stainless clad vessels, ranging from the smaller types which can be shipped completely assembled, to larger vessels requiring assembly in the field.

MORE ECONOMICAL

Although the initial cost of stainless steel is higher, it is more economical over a period of years because of its longer life and continuing resistance to corrosive agents of all kinds.

Our experienced engineering department is at your service to help in the design of vessels and selection of the proper materials to solve your problems. For competent service, write, wire or telephone our Birmingham office.

SPECIALISTS IN STAINLESS STEEL FABRICATION

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THE INGALLS IRON WORKS CO. Fabricating plants at Birmingham, Ala., Verona, Pa., and Pascagoula, Miss. Offices at BIRMINGHAM, Pittsburgh, New York and New Orleans.

Middle South Development Committee Readies Campaign For More Industry

In the race to attract more industries, the middle South was showing the rest of the nation how. Arkansas, Mississippi, and Louisiana, last month joined forces in a colorful campaign aimed at getting more industry into that expanding area.

To the small city of Greenville, Miss., came Governors Fielding Wright of Mississippi, Ben T. Laney of Arkansas, and Jimmie Davis of Louisiana, along with

business, industrial and educational leaders, to advance plans for an integrated development program.

Laying the groundwork and pushing the program hard were the four integrated utility concerns of the area — Arkansas, Louisiana, and Mississippi Power and Light Companies and New Orleans Public Service, Inc. In fact, Streuby L. Drumm, vice president of the

New Orleans, was chairman of the new organization, known as the Middle South Development Committee.

To the charge that there was plenty of competition for new industries, the organization had a ready answer. Their program would be bigger and better in that it involved planning by three states instead of one; the populations of three areas; plus promotion that had governmental and private forces working together.

To back this up the organization plans to spend more than \$1,000,000 in advertising during 1948.

Besides going all out to attract more industry, leaders of the new movement actually were delving deeply into the problems of their area. With the help of college presidents and other educators, the organization was working on the low level of mass education. Public health was also getting attention.

More Labor

Increasing mechanization of farms, say regional economists, will mean that 55 to 65 per cent of farm workers will not be needed by 1950. To avoid a surplus of manpower, the committee believes that industry must provide an answer.

Also, this great reservoir of manpower could be an attractive inducement to industries considering a location in that area.

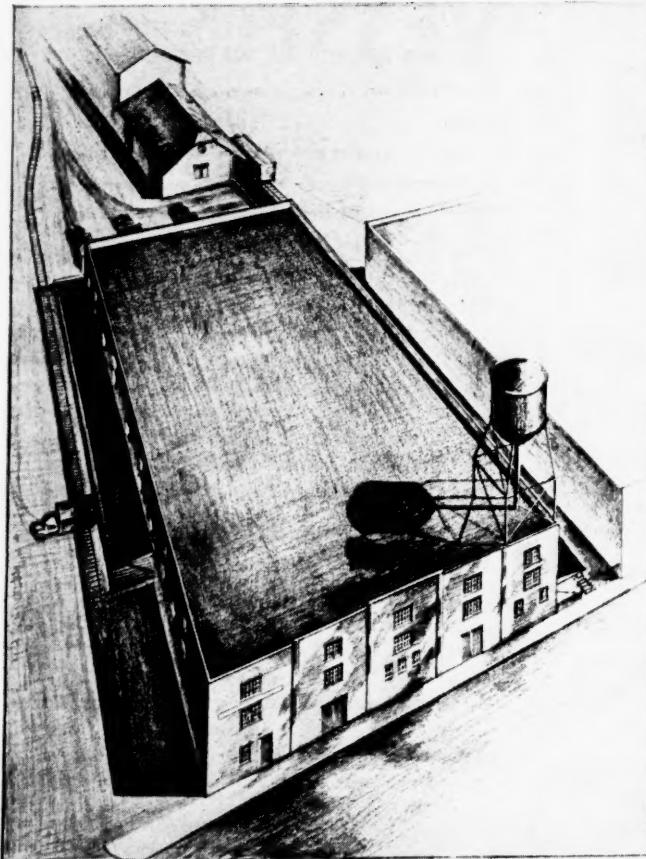
For the growth of industry, the four utility companies are making sure there will be no power shortage. During 1948 and 1949 the companies plan to spend \$100,000,000 in new power lines and generators. Additional expansion is planned for the years following.

Death Takes Ben Wand, Lumber Journal Editor

For more than 31 years, Ben Wand, publisher of the *Southern Lumber Journal* served the interest of that industry. There were few corners of the Southland that he had not visited, even fewer lumbermen who were not familiar with him and his indomitable will and courage.

Ben Wand was an indefatigable worker for the American way of life. His idealism and sense of responsibility drove him relentlessly onward. His efforts were largely responsible in building the group of trade associations which serve the South's retail lumber and building materials industry.

Five years ago, Ben Wand began a fight for his life. On April 5, 1948, he passed away. With his passing, the lumber industry lost one of its most devoted workers. The South and the nation have lost a compelling voice and an admirable citizen.



FOR SALE BY OWNERS

1088 Murphy Ave., S. W. — 2 miles from center of Atlanta
Priced \$150,000

This three story 60,000 sq. foot brick warehouse and office building, almost new offices nicely furnished—New automatic gas heat system—sprinkled—excellent rail and truck loading facilities, adjoins rail freight terminal enabling pick up and delivery freight savings.

Available about August 1, 1948.

CONTACT MR. C. L. PENNY OR MR. E. S. WALKLEY
ECONOMY AUTO STORES, BOX 5078—ATLANTA

MERRY BROTHERS BRICK AND TILE COMPANY

AUGUSTA
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Operating
THE MERRY SHIPPING COMPANY

WATER CARRIERS
BETWEEN SAVANNAH AND AUGUSTA



TERMINAL FACILITIES
— AT —

SAVANNAH AND AUGUSTA, GEORGIA

Greenville Takes A Look At Progress -- Manufacturers Display Area Products

Natives of Greenville, S. C., recently got a look at what was going on. Various products ranging from colored potato chips to disappearing stairways and automatic door openers were displayed in retail store windows by Greenville manufacturers as a feature of "visitors' week."

The 58 displays of products manufactured in the Greenville area marked the first time in some 15 years that firms presented to the public an array of items made here, and drew thousands of passers-by from their journeys along the sidewalks and centered their attention to retail store windows. Shirts in drug stores, colored potato chips in a shoe store, and coffee in a jeweler's window caught the eyes of pedestrians.

Life-long residents of the city were amazed at the varied lines of merchandise made in the area. Displays included men's and women's wearing apparel, toys, chemicals, candies and mayonnaise.

Both manufacturers and members of the Retail Merchants Bureau termed the project a success. Housewives scheduled special shopping tours in order to view the displays. Retail stores answered hun-

dreds of calls every day from buyers inquiring where they may place orders for items displayed.

Greenvillians began to realize the importance of their city to the surrounding region. The mass showing of home manufactured products further emphasized the rapid growth of the city.

The project was sponsored by the Greenville Chamber of Commerce, in cooperation with the Retail Merchants Bureau. Officials of both groups expressed hope that project will become an annual affair.

New Officers For Longview-Saginaw

Longview-Saginaw Lime Works, Inc., of Birmingham, Ala., have announced the election of officers presently serving the organization.

The officials are: Mrs. George A. Brewer, Chairman; Warren Lewis, President; Malone Moore, Vice-president

and Treasurer; Irwin Ehlmann, Secretary; and E. M. Snow, plant manager.

Mechanization Reduces Cotton Output Costs

In the South last month there seemed to be a little doubt that the machine was really about to become king.

In the realm of cotton, mechanization was paring down both labor costs and production. Some farms, in fact, had gone so mechanical that no hand labor was needed from planting to harvesting time. In the coastal plains of North Carolina, the labor time necessary to turn out a crop had been reduced to as low as 26 hours an acre, compared to a general average of 118 hours. In the Mississippi Delta, machines had cut the time from 141 hours to 23 hours. On the Texas plains, time had been reduced from 12 to 7 hours.

This capacity of the machine was described recently before the annual convention of the Texas Cotton Ginners Association by Clifton Kirkpatrick, head of the production department of the National Cotton Council.

Use of machines, he said, included not only the picking of cotton, but also the chemical control of weeds, which alone "can cut a third off the hours needed to produce a crop."

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**THE SOUTHERN PINE INTO KRAFT PAPER,
BOARD, BAGS AND BOXES IN LARGEST
PLANT OF ITS KIND IN THE WORLD!**

Jeffreys-McElrath Manufacturing Co.

P. O. BOX 137 - TEL. 3663
MACON, GA.

**DOMESTIC AND EXPORT
FABRICATED BOXES
CRATES-PALLETS
SOUTHERN HARDWOODS
YELLOW PINE LUMBER**

Daily Capacity 300,000 Feet

FACTORY LOCATIONS

MILLEDGEVILLE, GA.
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JULLIETTE MILLING COMPANY

Manufacturers of
TEXTILES

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GRAINS

In Georgia Since 1899

MACON, GEORGIA



IF YOU CAN SELL IT... *We can make it!*

PRODUCTION IS NO PROBLEM HERE

SAVANNAH MACHINE & FOUNDRY COMPANY, Established for More than Forty Years, is now making its comprehensive and versatile manufacturing facilities commercially available . . . to the manufacturer with plant limitations . . . to the sales organization needing a greater volume of production . . . or to the man with a new product to produce.

FROM Plastic Name Plates to Machine Tool Components . . . from Galvanizing and Foundry Work to the production of Precision Electrical Parts . . . our manufacturing resources are completely capable of producing parts or assembled units with the facility necessary to meet your required sales demands. A complete ENGINEERING and DETAIL DESIGN DIVISION is constantly available within our Plant for Consultation or definite assignment.

YOUR IMMEDIATE PROBLEM . . . whether it's an urgent need for a job lot of 1,000 small parts or 1,000,000 assembled units . . . write for QUOTATION . . . SPECIFIC INFORMATION . . . or ADVICE.

WHY BUILD A SOUTHERN PLANT . . . when RIGHT NOW these facilities and our highly skilled organization are all set up to turn out your Southern sales volume without a nickel investment on your part. CONTRACTS accepted either on a temporary or permanent basis. WRITE for detailed information.

**ACCESS TO DEEP WATER
TRANSPORTATION . . . SERVED
BY FIVE MAIN LINE RAILROADS.**

**SAVANNAH
MACHINE & FOUNDRY CO.
SAVANNAH, GEORGIA**

Robert S. Byfield

(Continued from page 29)

non-recurring and in the nature of a windfall. Only those with an ax to grind would use it as a basis of permanent wage policy and certainly current quotations for industrial common stocks are not reflecting it as a basis for measuring realistic earning power.

This column obviously can do little more than point out some of the many weaknesses of the arguments attempting to prove that profits are too high. More than likely the opposite is nearer the truth. Profit margins based on sales are sub-normal. The National City Bank has pointed out that to earn \$17 billion in 1947 American corporations had to transact gross business of about \$300 billions which accordingly yielded a margin of around 5½ per cent. For many industries, faced with tremendous demands for capital merely for "corporate housekeeping" or the costs of staying in business, the present profit margins are below pre-war and quite uncomfortably low. In the automotive field for example, the profit per sales dollar was 12½¢ in 1936 and only 6½¢ in 1947, and with an enormous program of rehabilitation and modernization in progress which is costing General Motors alone about \$600,000,000.

Nor, despite its size, was the corporate "take" in 1947 out of line compared with our private national income. The ratio was actually less in 1929 and 1940 after adjusting for inventory valuation. An admirable two page study of this situation was recently made by Harold B. Dorsey, President of Argus Research Corporation of New York under the title "Is your freedom worth 90 cents?" Mr. Dorsey, using government statistics, shows that even if our private incentive system were overthrown and all dividends eliminated the result would get each person in the U. S. another 90 cents per week. (Copies are available to readers of the MANUFACTURERS RECORD on request.)

Facts like these will not deter radicals nor the Kremlin from lending a hand from time to time.

"THE SWEETEST SUGAR EVER SOLD"

Dixie Crystals
PURE CANE Sugar

PACKAGE SUGARS

1 LB. NET WT.

MANUFACTURED & PACKED BY
SAVANNAH SUGAR REFINING CORPORATION
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Southward for **BETTER BUSINESS**

Georgia is located in the center of the Southeast — America's fastest growing market. Her wealth of natural resources, abundance of raw materials, excellent labor conditions, unusual transportation facilities, and delightful, temperate climate, combine to make this . . . the largest state east of the Mississippi . . . the natural location for progressive business and industry.

After over a half-century of identification with industrial achievement in the Southeast, this institution . . . with five affiliated banks in Georgia's most important trade areas . . . offers statewide facilities to business officials interested in the expansion of operations or the establishment of new enterprise.

DO YOU HAVE A *Secret* PROBLEM ?

It may be pride—it certainly is not failure to recognize that a problem exists—but far too many intelligent industrialists and merchants are inclined to hide their more serious problems in the secret places of their hearts. Not having the whole answer, they just won't bring them out where analysis from an unbiased outside viewpoint can produce an answer, pleasant or otherwise. This sometimes leads to stomach ulcers.

Right now many such problems are going to revolve around prices, costs and break-even points and their relation to merchandising strategy.

Twenty-five years of thinking about Georgia and the Southeast and extensive files, which help provide solid answers, are available when you bring your secret problems to

JOSEPH B. HOSMER

Consulting Economist

208 Geneva Street

Phone Dearborn 1349

Decatur, Ga.

TRUST COMPANY OF GEORGIA and AFFILIATED BANKS



ATLANTA — Trust Company of Georgia

AUGUSTA — The National Exchange Bank

COLUMBUS — The Fourth National Bank

MACON — The First National Bank and Trust Company

ROME — The First National Bank

SAVANNAH — The Liberty National Bank and Trust Company

MEMBERS:

FEDERAL DEPOSIT INSURANCE CORPORATION

FEDERAL RESERVE SYSTEM

Reforestation

(Continued from page 75)

loaded and unloaded with the use of efficient mechanical equipment—cranes. It is believed that stepping up the use of modern pulpwood cars at least to the minimum requirements of a mill will result in greater efficiency for the carrier because quicker loading and unloading will mean swifter return of the car to the line so that a greater proportionate amount of time will be spent in rolling to and from the mill in more trips.

Studies Area

Since the Seaboard Air Line Railroad's Industrial Department had a hand in bringing paper mills South to on-line locations, its interest in the industry and desire to assist other mills seeking locations in finding the most economical sites have caused it to make a close study of potentialities along its lines. Over a number of years this department has compiled complete information on outstanding locations for pulp and paper mills in the Seaboard Southeast and is in position to furnish data on timber supplies, including ownerships within a radius of 50, 75 and 100 miles of these sites. Information on taxes, labor supplies, wage rates, freight rates on basic raw materials, pow-

er, fuel supplies, stream flow data and water analyses and other pertinent facts necessary to proper selection of the plant site are available for mill executives seeking new locations.

Contribution

The Seaboard's contributions to the integration of farm and forestry will result not only in increased wood supplies but also in a balanced soil utilization. In its vision of the South, the road can now see the eventual achievements of the desired balance between farm and factory.

issue long-term bonds. A part of outstanding notes would be refunded.

Texas City Damage Suits Approach \$100,000,000

As a result of explosions which leveled Texas City, Tex., on April 16, 1947, damage suits amounting to nearly \$100,000,000 have been filed against the federal government.

Officials of the Monsanto Chemical Co., whose \$10,000,000 plant was destroyed in the disaster, announced through an official release that it would file a \$50,000,000 suit. Several other suits, totaling \$5,208,446 have been filed.

The Monsanto release states that the suit will charge that government negligence in failing to insure proper handling of an explosive was responsible for the disaster, which resulted in death to more than 500 persons, and injuries to an additional 3,000.

Some 60 other petitions totaling over \$30,000,000 already are pending in the federal district court at Galveston.

Recent claims made involve the Lykes Brothers Steamship Co., Humble Oil and Refining Co., a consolidated suit by 26 parties, James I. Flagg and the Texas Employers Insurance Association and two stevedoring companies.

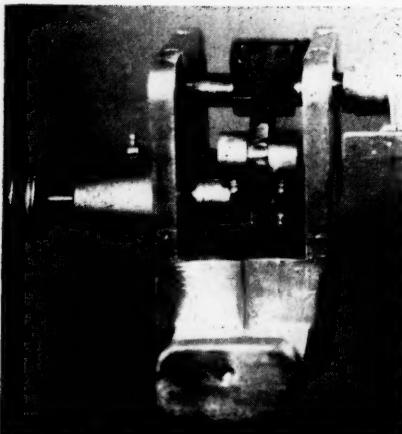
Southern Natural Gas Forms Financing Plans

To meet increased demand for natural gas, the Southern Natural Gas Co. already has in progress construction of pipelines and compressing facilities which are expected to be completed before next winter.

These facilities will increase delivery capacity from 294,000,000 to 385,000,000 cubic feet a day.

To finance a 1948 construction program of \$9,200,000 the company in its annual report to stockholders stated that it would

**Want a comb box that uses no oil?
that is free of chatter?**



The Colonel comb box is the answer to your problem. Equipped with ball bearings, and precision balanced rocker arm, this box represents a radical and progressive departure from the old type box.

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Taft-Hartley Act Holding Up Despite Labor's Strategy of Piecemeal Attack

As he walked into Federal Court at Washington, D. C., big, grey John L. Lewis probably knew that as far as the court battle was concerned he was a beaten man. But, inwardly he knew that he had already won a decisive victory over the coal operators even at a severe cost to himself and his union. With Senator Styles Bridges acting as referee in the dispute, Lewis' strategy was made crystal clear. Despite the objections of the coal operators' representative, Ezra Van Horn, Bridges' proposal to grant pensions to miners firmly established the principle Lewis wanted. It meant that when his present contract expires, his bargaining position would be just that much better.

In the controversy, the government's strategy also stood out sharply. In deferring punishment on Lewis' civil contempt of court, the court was holding back a blow that would surely fall if there was any further reaction from miners during the 80-day cooling off period.

As his miners drifted back to work, the UMW chieftain hoped their return would dispel some of the wrath of the court. But despite a battery of defense attorneys Lewis' old adversary, Justice T. Alan

Goldsborough, who had fined Lewis and his miners \$3,500,000 for contempt of court 17 months ago, pronounced a whopping sentence.

To Lewis' contention that he had not ordered the miners to strike, the stern Justice said: "If a nod or a wink or a code was used in the place of the word 'strike,' there was just as much a strike called as if the word 'strike' had been used. As long as a union is functioning as a union it must be held responsible for the mass action of its members."

Lewis was still subject to punishment on the civil contempt charge, but a few days later the Court bowed to the recommendation of the government that any further punishment at this time be deferred. In making this recommendation, Assistant Attorney General H. Graham Morison declared that the "government is quite happy over the return of the miners to work" and that "production of coal was back to 85 per cent of normal."

But in making a deferment of any further sentence, the court left no doubt that a big stick was still swinging over Lewis' head. The miners were on their good behavior and a further work stoppage dur-

ing the cooling off period would probably find the Court considerably less lenient with the labor leader.

At the close of the trial interested observers sighed with no little relief. To many it seemed that the court at last was considering unions as an individual entity and as such, subject to the penalty of the court for irresponsible actions which directly endanger the welfare of the nation.

More important, the decision of the court was a sizable setback to labor strategy which apparently was to pick the Taft-Hartley law to pieces bit by bit.

But under the pressure of this union strategy, the new labor law seemed to be holding its own. In only one instance had a provision of the law been defeated. That was the law's ban on the spending of union funds for political purposes.

From the beginning, this provision had been the special target for a barrage of blistering criticism. To the charge that the ban constituted a restriction of freedom of the press, even Senator Bob Taft, co-author of the act, was a bit confused. He had admitted that the law on that point needed "clarification."

Three weeks after the passage of the law, Phillip Murray, CIO leader, deliberately invited prosecution by signing a page one editorial in the *CIO News* endorsing the candidacy of Edward A. Garmatz in a special Maryland congressional

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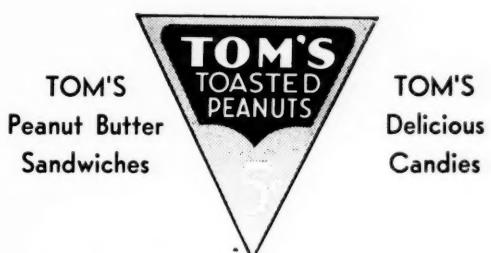
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3. A yearly market for 21,000,000 lbs. of Spanish peanuts, 4,000,000 lbs. of sugar, 2,000,000 lbs. of corn syrup and many other Southern products.
4. An annual payroll of \$1,800,000—of vital importance to the merchants of Columbus trade territory.

election. Then he ordered 1,000 extra copies of the paper containing the editorial printed and distributed in Baltimore.

To back the Taft-Hartley law, Attorney General Tom Clark hauled Murray into court, but saw that provision of the act held unconstitutional.

Other attempts by labor, however, to attack the flanks of the law have met with little success.

Two Principles

Recently, two important principles of the Taft-Hartley law were upheld by a special three-judge court in Washington. The court agreed that Congress may require unions to file membership and financial reports.

The same court dealt a massive blow to communist-line unionists. By a vote of 2 to 1 it decided that the Taft-Hartley law was within the Constitution in requiring that before a union can take a case to the National Labor Relations Board, its officers must swear that they are not communists. The majority held that Congress has the right to prescribe qualifications for those who ask the "privilege of acting for workers as their exclusive bargaining agent." For obvious reasons, the court decided that Communists do not qualify.

By all of this, labor was momentarily set back on its heels. But with CIO's Phillip Murray calling for wage increases despite the steel reduction in prices, many observers quietly wondered what would come next.

South Wins Wide Praise For Work In Research

The South is the "best documented section of the Nation" in that it excels in research and inventories in social and economic problems, and the next step is to make use of this "wealth of information," showing where and how this region lags and leads, through social action techniques.

With words to this effect, Dr. John E. Ivey of the University of North Carolina, executive secretary of the committee on Southern Studies and Education spoke to the 125 representatives of state departments of education, state universities and various state agencies from 12 Southern states and other regions, as they began the second day's sessions of the Southern work conference on resource-use education.

The purpose of the conference was to determine the best way to present the facts about social and economic assets and liabilities to the citizens of each community,

large or small, so as to produce the kind of behavior that will get action. This is essentially a planning operation which must be approached objectively.

"This conference marks a new level in social action and interpretation. The best inventory in the country has been built up in the South as a result of many years of work under the direction of Dr. Howard W. Odum and other leaders of this region, and the time has come to make use of these inventories," Dr. Ivey explained.

South's Progress A Lift To Southern Railway Head

Visiting Charlotte, N. C., recently, Ernest E. Norris, president of the Southern System expressed himself as being enthusiastic over the continued industrial progress "despite the confusion that exists throughout the world."

The railway executive added that "seeing the new factories going up everywhere in the South gives a greater lift to the spirits than all the Spring tonics on the market."

The Southern's president also announced that it will be "good news for our shippers to learn that we are getting delivery on the 3,000 box cars ordered more than a year ago."

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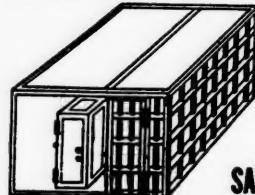
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Ample supply of native-born, loyal workers with labor trouble unheard of. Reasonable tax rate.

Commissary building, frame construction, 2 stories, approximately 75 x 100 feet; warehouse, brick construction, 40 x 60 feet; dwellings built of native long-leaf pine. Exceptionally fine site for factory building and room for all other facilities, including additional housing.

One of the best known engineering firms, J. B. McCrary Co., Atlanta, has made a survey of this property and it is estimated that a 17-foot dam can be built which would develop 375 horse-power, 252 k.h., at the cost of approximately \$60,000, including generating equipment. Backwater would not infringe on adjoining property.

This entire property is for sale or lease on basis of about \$100,000, which is less than cost of improvements alone.

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185

Baltimore and Ohio Railroad Company, in its 1947 annual report listed a net income of \$9,259,381, an increase of better than \$4,000,000 over 1946 despite a heavy improvement program carried on during the war.

* * *

Crawford Sprinkler Supply Co., with main offices at East Point, Ga., is opening a sales office in Spartanburg, S. C. for their Automatic Sprinkler, Fire Protection, Heating, Boiler and Industrial Piping, Pipe, Valves and Fittings and services.

* * *

The name of the American Rolling Mill Co. was changed officially to the **Armeo Steel Corp.** at the annual meeting of stockholders held recently.

* * *

Savannah & Atlanta Railway Co. reported income after fixed charges for 1947 as \$266,746. Chairman Robert M. Nelson announces that the road is starting a dieselizeation program that will convert all steam locomotives to diesels. Fifty boxcars have also been ordered.

* * *

Humble Oil Co., Houston, Texas, announced its net income for 1947 as \$124,106,900, compared with \$71,831,000 for 1946. Dividends of \$3.00 a share aggregated \$53,927,000, while capital expenditures were \$96,134,000.

Business Notes

Net income for the **Gulf States Utilities Co.** in 1947 amounted to \$3,943,480, a 14 per cent increase over 1946.

* * *

Locke Inc. is the new name of Locke Insulator Corp. The new name was approved by stockholders at a February meeting.

* * *

Robert P. Patterson, former Secretary of War of the United States, was recently elected a director of **International Business Machines Corp.**

* * *

The St. Louis-San Francisco Railway System reports a net income of \$5,889,-

Keep Up With The South's Post-War Industrialization

Read the Record and stay
abreast of progress

\$3.00 per year

812 in 1947. Gross operating revenues of the company went up in 1947 to \$110,018,735—a peacetime record for the railroad—and contrasted with gross revenues of \$96,656,712 for the preceding year.

* * *

W. E. Falberg, for the past three years head of special steel sales at the Cleveland, Ohio, steel service plant of **Joseph T. Ryerson & Son, Inc.**, has been appointed manager of alloy and stainless sales at the company's plant at Chicago, Ill.

* * *

Sterling Tool Products Co. has established a new sales office and Service Depot at 405 W. Washington St., Los Angeles.

* * *

United States Steel Corp. announced a 1947 profit of \$127,000,000 as against \$89,000,000 in 1946. Shipments of steel products in 1947 were 20 per cent higher than the previous peacetime record set in 1929.

* * *

After 56 years as the Mathieson Alkali Works, stockholders of that company recently voted to change its name to **The Mathieson Chemical Corp.** The company's first plant was erected at Saltville, Va.

* * *

Stockholders of the Georgia Hardwood Lumber Co., recently voted to change the company's name to **Georgia-Pacific Plywood & Lumber Co.**

AUGUSTA HARDWOOD CO.

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Pine — Hardwoods — Cypress

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SAVANNAH, GEORGIA

COMING EVENTS

MAY—

3-4—Southern Association of Science and Industry, Inc., Meeting, Hotel McAllister, Miami, Fla.

3-7—American Foundrymen's Association, 1948 Foundry Congress and Show, Convention Hall, Philadelphia, Pa.

5-7—Cotton Manufacturers Association of Georgia, 1948 Convention, Sheraton Plaza and Princess Isenna Hotels, Daytona Beach, Fla.

5-7—International Council of Industrial Editors, Annual Convention, Schroeder Hotel, Milwaukee, Wis.

13-14—American Management Association, Production Conference, Palmer House, Chicago, Ill.

15-22—International Petroleum Exposition, Exposition Grounds, Tulsa, Okla.

19-21—Association of State Planning and Development Agencies, Annual Conference, Nashville, Tenn.

27-29—Tufted Textile Manufacturers Association, Third National Convention, Sheraton Plaza Hotel, Daytona Beach, Fla.

31-June 5—American Society of Mechanical Engineers, Semi-Annual Meeting, Hotel Schroeder, Milwaukee, Wis.

JUNE—

7-12—International Exposition of Textiles, Trimmings, and Factory Equipment, Grand Central Palace, New York.

JULY—

1—International Trade Mart, New Orleans.

16-24—American Road Builders Association, Show, Soldier Field, Chicago.

22-24—Cotton Research Congress, Ninth Annual Meeting, Dallas, Tex.

AUGUST—

22-25—National Industrial Stores Association, 22nd Annual Convention and Merchandise Exposition, Hotel Netherland Plaza, Cincinnati, Ohio.

Under the contract, Mexico-Cities Service Petroleum Corp., a subsidiary of Cities Service Co., will "provide capital for exploration and development by Pemex (Petroleos Mexicanos)" of more than one million acres of oil lands in Northeastern Mexico, formerly controlled by Cities Service subsidiaries.

In return, Cities Service will get a right to purchase a share of any oil found, though just how much and on what terms was not disclosed.

Observers wondered whether or not the Cities Service deal might set a precedent for similar future contracts with American Oil Companies.

Cities Service To Develop Mexico Oil Resources

Under terms of a contract recently concluded with Antonio J. Bermudez of Petroleos Mexicanos, Cities Service Co. will begin development of oil resources in Mexico.

The announcement, which came from Cities Service Co. president, W. Alton Jones, marks the first contract between Mexico and a large American oil company since the expropriation of American oil properties in 1938.

Texas Gas Output Hits High Mark

Gas production in Texas moving along at a record clip. Already a daily rate of more than ten billion cubic feet had been achieved, said a report from the Railroad Commission.

A summary of gas operations in January showed production of 278,286,281,000 feet, almost nine billion feet daily. Besides this, the commission estimates that more than one billion feet of casinghead gas is destroyed daily in the oil fields without being reported.

The January report covered 220,750-

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T. C. PERRY, Vice Pres't.
P. H. BURRUS, Sec'y & Treas.

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SERVING COLUMBUS AND THE COLUMBUS TERRITORY SINCE 1885

629,000 feet of natural gas and 57,535,652 feet of casinghead produced with oil.

Pipelines took nearly half of this output, 48.29 percent while carbon black plants took 11.91 percent.

Voluntary Allocation Plan Aimed At Car Shortage

The mammoth peacetime production of Southwestern industry and agriculture, plagued by transportation shortage, soon may ride on thousands of new freight cars.

The Department of Commerce has announced the first voluntary plan with industry to channel steel into the production of 10,000 new freight cars monthly. The shortage of freight cars has been given priority over all other shortages which basically affect the cost of living or industrial production.

The Southwest Shippers Advisory Board has been fighting for four years to get the production of freight cars up to 10,000 monthly, said W. Wallace Green of Dallas, former general chairman. He said there would be a "considerable shortage of class A cars when the big grain movement begins in Texas and Oklahoma" late in June.

Shippers estimate that there will be a 15 per cent increase in the number of

freight cars needed for grain in the second quarter of 1948 as compared with 1947. The estimate of freight cars needed this year is 41,717 for the period as compared with 36,275 last year.

The new office of Industry Cooperation will administer the industry agreement which has been designated Voluntary Allocation Plan No. 1.

It has been approved by Attorney General Clark and Secretary of Commerce Harriman. Industries participating in the program must file compliance requests to provide immunity under the antitrust laws and the Federal Trade Commission Act.

The plan will provide approximately 250,000 tons of steel monthly for car building and repair shops.

Scores Of Vital Jobs Done By Small Planes

The Civil Aeronautics Administration recently countered a prevailing impression that the airplane has two sole functions—bombing and transportation in approximately that order—when it released a study indicating that hundreds of aircraft operators in the United States using several thousand planes commercially are knocking ripe fruit from trees, rainmak-

ing, hunting eagles, transporting dynamite and fifty odd other activities.

The list, states a CAA official, is to be regarded as indicative of the usefulness of the light and medium heavy aircraft, and while the catalog of air activities throughout the country is varied, the bulk of small plane operations are centered in the crop dusting, seeding, patrolling fences and checking cattle.

The bulk of this flying is centered in the west, according to the experts, but some types of work are done considerably in and around the New York area as well as nationally. Examples of this are: air photography, mapping and surveying industry, forest, highway, powerline and pipeline patrol work. Other operators and planes are engaged in: searching for oil underground by the use of radar, skywriting, spotting schools of fish, loudspeaker advertising, etc.

The CAA points out that many operators are engaged in several different activities, and hence a single plane may be used for a number of related jobs.

Whether or not there is any relation to mosquito hunting and hauling dynamite, glider towing and spreading fertilizer—fifty-one planes are listed for this activity—weed, coyote, eagle and ambulance work is not disclosed by the Civil Aeronautics Authority.

JOE S. BURGIN, President & Treasurer
Chairman Pine Mountain Soil Conservation District

J. C. BURGIN
Vice Pres.

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DAILY CAPACITY 100,000 FEET
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Texas & Pacific Reports Record Earnings for 1947

Reflecting the high level of industrial and agricultural productivity in the area it serves, the Texas & Pacific Railway Co. had \$64,704,829 operating revenues for 1947, highest for any peacetime year and net income of \$5,460,081.

In the company's 76th annual report, President W. G. Vollmer commented that "generally speaking" 1947 was a good year for the road.

Operating revenues showed an increase of \$8,803,762 or 15.75 per cent over 1946 and were 2.35 times as large as the average of the four years 1937 through 1940.

Railroad Merger Affirmed By Commerce Commission

A 1947 order for merger of the Florida East Coast Railway Co. with the Atlantic Coastline Railroad was recently affirmed by the Interstate Commerce Commission.

The Commission had found at a hearing on April 8, 1947, that a reorganization for the Florida East Coast could best be carried out by consolidating it with the Atlantic Coastline, and this finding was upheld on a 6 to 5 division several weeks ago.

The St. Joe Paper Co., a major holder

of Florida East Coast bonds, and other interests had challenged the earlier finding, and it sought to obtain control of the road to permit independent operation.

The approved reorganization law for Florida East Coast calls for capitalization of the properties at \$40,500,000, and of this amount, Atlantic Coastline is to put up \$4,125,000 in cash to cover partially the claims of the East Coast first and refunding bondholders. The remainder of the new capitalization would consist of new Atlantic Coastline securities.

In declaring his opposition to the merger plan, Commissioner Mahaffie said: "The report now issued is likely to prolong the controversy." He was joined in this view by Chairman Lee and Commissioners Miller, Splawn and Mitchell.

L. & N. Head Says Roads Oppose Transport Aid

President James B. Hill of the Louisville & Nashville Railroad let it be known emphatically last month that railroads were against government aid or subsidies for all forms of transportation, including themselves.

Hill's statement was in explanation of his attitude on federal appropriations for river and harbor improvements and flood control.

A report had quoted Senator John H. Overton of Louisiana as saying that the railroad official opposed the Louisville flood-wall.

Hill said that he wrote Overton after reading a statement that President Truman had signed the 1948 act providing the largest appropriations ever made for river, harbor and flood control works.

His letter said: "With a federal debt of almost \$260,000,000,000 and an annual interest charge of approximately \$5,000,000,000 it seems to me that expensive improvements, if only desirable should be withheld. They should be limited to necessary improvements only . . . in my judgment we need economy in government and the minimizing of public expenditures.

"Senator Overton also asked," Hill's statement said, "why I do not advocate economy even against the very interests of this railroad and the doctrine of economy to its logical complete and patriotic conclusion. I answered him that I did that very thing. I further said that, with rare exceptions, there was not in my judgment a single business activity carried on by government that would not be better and more economically performed by private enterprise and that the railroads in general are against Government aid or subsidies, not only to them but all other forms of transport."

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Trade Literature

ACME ELECTRIC WELDER CO., 2618 Franklin Rd., Los Angeles 11, Calif.—Recently published a catalog entitled "New Resistance Welding Alloy Catalog" which depicts a complete line made from Acemloy, superloy and stainaloy.

ALLEGHENY LUDLUM STEEL CORP., Pittsburgh 22, Pa.—A booklet on plant safety.

AMERICAN NICKELOID CO., Peru, Ill.—A booklet featuring the widespread use of pre-plated Nickeloid metals.

ASSOCIATED RESEARCH, INC., 231 S. Green St., Chicago 7, Ill.—Catalog containing technical information and engineering data for a wide range of precision instruments for industry and utility. Available in bound form.

AUTOCALL CO., Shelby, Ohio—Eight page booklet covering the Autocall line of fire alarm equipment.

CHICAGO BRIDGE AND IRON CO., 332 S. Michigan Ave., Chicago 4, Ill.—Eighteen page booklet entitled, "Horton Ellipsoidal Bottom Elevated Steel Tanks Of Welded Construction" containing illustrations of the seven different sizes of tanks, and a page of construction details.

COMMERCIAL SHEARING AND STAMPING CO., Youngstown, Ohio—Booklet listing styles and sizes of the various heads manufactured. The booklet is entitled, "Commercial Products For Boiler and Tank Manufacture."

EMERSON ELECTRIC MANUFACTURING CO., St. Louis 21, Mo.—An Emerson-Electric Master Fan Catalog, illustrating in color and describing in detail the company's complete line of 1948 fans.

FLODAR CORP., 331 Frankfort Ave., Cleveland, Ohio—Catalog describing in detail the role of tube fittings in the sealing of higher fluid pressures.

FURNAS ELECTRIC CO., Batavia, Ill.—Catalog number 48, covering the Furnas line of electric motor controls.

GUMMED PRODUCTS CO., Troy, Ohio—Booklet entitled, "The Story Of GP Adhesive" telling, according to the manufacturer, how this company's gummed adhesive improves the performance of gummed tape.

KEYSTONE CARBON CO., 1935 State St., St. Marys, Pa.—Folder entitled, "Keystone Precision Molded Products for the Electrical Industry" describing Keystone powder metal parts and other products.

WILLIAM F. KLEMP CO., 6654 S. Melvina Ave., Chicago 38, Ill.—Grating catalog illustrating and explaining uses of all types of riveted and welded open steel and aluminum grating, stair treads, catwalks and structural steel walkways.

LINK-BELT CO., 307 N. Michigan Ave., Chicago 1, Ill.—Sixteen page illustrated book, number 2261, on top-icing with snow ice using the company's ice crusher-slingers.

MACK TRUCKS, INC., 350 Fifth Ave., New York 1, N. Y.—"Mack in the Timber Industry" is the name of an eight page booklet describing the use of motor trucks in logging operations.

MICHIGAN POWDERED METAL PRODUCTS CO., INC., Northville, Mich.—The advantages of the powdered metal process of producing finished parts are outlined in a four-page illustrated bulletin.

MINNESOTA MINING AND MANUFACTURING CO., 601 Fanquier Ave., St. Paul 6, Minn.—Brochure offering research help for industrial customers, in choosing the right adhesives, sealers and coatings, entitled "3M Adhesives in Industry."

MORSE CHAIN CO., 7601 Central Ave., Detroit 8, Mich.—Thirty-two page catalog (C

41-48) devoted to the Morse Morflex coupling line, and catalog C71-48 which is a follow-up of the company's silent chain and sprocket standardization program, and which carries specifications, service factors and classifications and installation data of the new stock drives.

PENNSYLVANIA REFINING CO., 2686 Lisbon Rd., Cleveland 4, Ohio—Portfolio containing complete sales and promotional facts about Penn Drake Gunout, a gum solvent.

PRODUCTION INSTRUMENT CO., 702 W. Jackson Boulevard, Chicago 6, Ill.—Sixteen page bulletin with illustrations showing electric counter applications for counting parts, cartons, cases, boxes, mechanical operations, oranges, towels, folding machine production, etc.

PULVERIZING MACHINERY CO., 173 Chatham Rd., Summit, N. J.—Illustrated bulletin entitled, "Optimum Recovery with the Mikro-Collector," describing the features of the dust collector.

SCHUTTE AND KOERTING CO., 1201 and Thompson Sts., Philadelphia 22, Pa.—Twenty-eight page bulletin pictures and describes the company's line of boiler stop valves, check valves, stop check valves and triple duty valves for medium and high pressure service from 250 pounds to 2,100 pounds and temperatures up to 1,150 degrees F.

SURFACE COMBUSTION CORP., Toledo 1, Ohio—Four page bulletin number SC-136 describes heating and annealing of copper and brass and other non-ferrous alloys in "Surface" furnaces. Bulletin SC-137 describes the "Surface" dew point recorder and the "Surface" atmosphere selector, and the many industrial uses of them.

TORQ ELECTRIC CORP., 1057 Interstate St., Bedford, Ohio—Bulletin describing new line of Torq F.H.P. motors now in production.

WHEELCO INSTRUMENTS CO., 847 W. Harrison St., Chicago 7, Ill.—Twelve page, two color bulletin containing illustrations, wiring diagrams and a complete description of Wheelco Flame-trol Combustion Safeguard systems.

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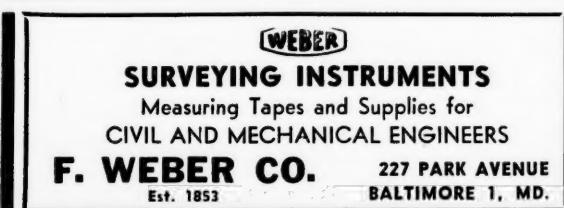
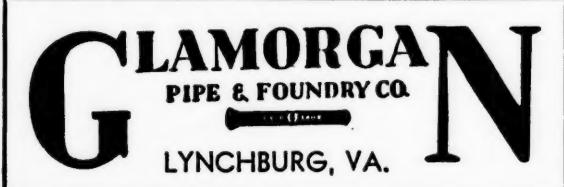
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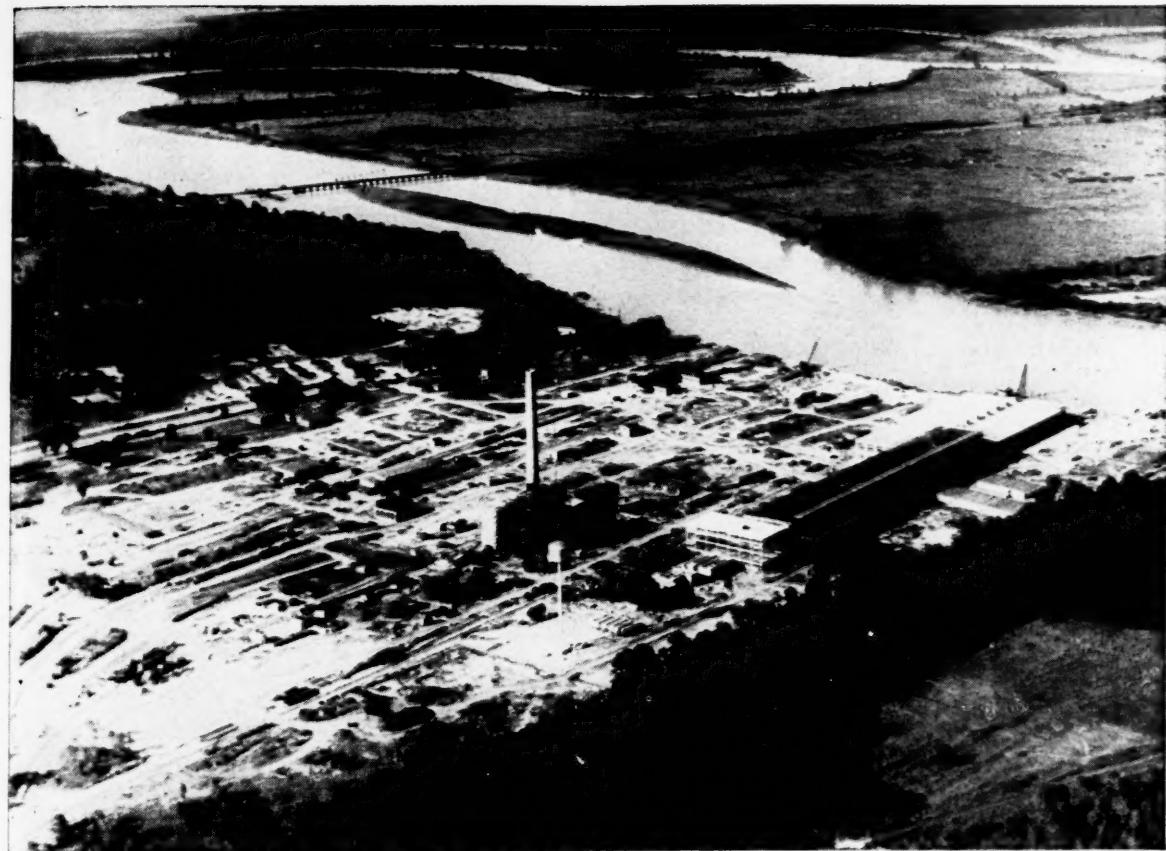
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